RF TEST REPORT

ISSUED BY
Shenzhen BALUN Technology Co., Ltd.

FOR

Camera Hub G3

ISSUED TO
Konec Solutions Pty Ltd

Level 3, 5 Talavera Rd, Macquarie Park NSW 2113 Australia

Tested by: Zhang Zhenwu

Date Jan. 25, 2022

Approved by: Liao Jianming

(Technical Director)

Date Jan. 25, 2022

Report No.:	BL-SZ21C0720-602
EUT Name:	Camera Hub G3
Model Name:	CH-H03
Brand Name:	Aqara
Test Standard:	AS/NZS 4268:2017 (refer section 3)
Test Conclusion:	Pass
Test Date:	Dec. 28, 2021 ~ Jan. 13, 2022
Date of Issue:	Jan. 25, 2022

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Revision History

Version	Issue Date	Revisions Content
Rev. 01	Jan. 25, 2022	Initial Issue

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1 ADMINISTRATIVE DATA (GENERAL INFORMATION)

1.1 Identification of the Testing Laboratory

Company Name	Shenzhen BALUN Technology Co., Ltd.
Address	Block B, 1st FL, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Phone Number	+86 755 6685 0100

1.2 Identification of the Responsible Testing Location

Test Location	Shenzhen BALUN Technology Co., Ltd.
Address	Block B, 1st FL, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Description	All measurement facilities used to collect the measurement data are located at Block B, FL 1, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China 518055

1.3 Laboratory Condition

Ambient Temperature	20℃ to 35℃
Ambient Relative Humidity	30% to 75%
Ambient Pressure	98 kPa to 102 kPa

1.4 Announce

(1) The test report reference to the report template version v2.1.

(2) The test report is invalid if not marked with the signatures of the persons responsible for preparing and approving the test report.

(3) The test report is invalid if there is any evidence and/or falsification.

(4) The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein.

(5) This document may not be altered or revised in any way unless done so by BALUN and all revisions are duly noted in the revisions section.

(6) Content of the test report, in part or in full, cannot be used for publicity and/or promotional purposes without prior written approval from the laboratory.

(7) The laboratory is only responsible for the data released by the laboratory, except for the part provided by the applicant.

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	Konec Solutions Pty Ltd
Address	Level 3, 5 Talavera Rd, Macquarie Park NSW 2113 Australia

2.2 Manufacturer Information

Manufacturer	Lumi United Technology Co., Ltd.
Address	8th Floor, JinQi Wisdom Valley, No.1 Tangling Road, Liuxian Ave, Taoyuan Residential District, Nanshan District, Shenzhen, China

2.3 Factory Information

Factory	N/A
Address	N/A

2.4 General Description for Equipment under Test (EUT)

EUT Name	Camera Hub G3
Model Name Under Test	CH-H03
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	V1.0.1
Software Version	V1.0.1
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

2.5 Technical Information

EUT Type	Stand-alone equipment
Network and Wireless connectivity	WIFI 802.11a, 802.11b, 802.11g, 802.11n, 802.11ac Band 1/2/3/, 5.8G SRD, ZigBee

The requirement for the following technical information of the EUT was tested in this report:

Frequency Range	802.11b/g/n (20 MHz): 2.412 GHz - 2.472 GHz f_c = 2412 MHz + (N-1)*5 MHz, where - f_c = "Operating Frequency" in MHz, - N = "Channel Number" with the range from 1 to 13. The frequency block is 2.4GHz-2.4835GHz
Modulation Type	DSSS, OFDM
Equipment Type (LBT / non- LBT)	LBT based Detect and Avoid
Adaptive or non-adaptive	Adaptive
LBT Based	Yes (Load Based)
Antenna System (eg., MIMO, Smart Antenna)	N/A
Categorization as Correlated or Completely Uncorrelated	N/A
Antenna Type	Steel Disc Antenna
Antenna Gain	2.0 dBi (In test items related to antenna gain, the final results reflect this figure. This value is provided by the applicant.)
Beamforming Gain	N/A
The Max RF Output power	17.5 dBm
Receiver Category	1

Modulation technology	Modulation Type	Transfer Rate (Mbps)(Single RF path)
DSSS (802.11b)	DBPSK	1
	DQPSK	2
	CCK	5.5/11
OFDM (802.11g)	BPSK	6/9
	QPSK	12/18
	16QAM	24/36
	64QAM	48/54
OFDM (802.11n-20 MHz)	BPSK	6.5/7.2
	QPSK	13/19.5/14.4/21.7
	16QAM	26/39/28.9/43.3
	64QAM	52/58.5/65/57.8/65/72.2
Note: Preliminary tests were performed in different data rate in above table to find the worst radiated emission. The data rate shown in the table below is the worst-case rate with respect to the specific test item. Investigation has been done on all the possible configurations for searching the worst cases. The following table is a list of the test modes shown in this test report.		

Test Items	Mode	Data Rate	Channel
RF output power	11b/11g/11n20	1/6/6.5 Mbps	1/7/13
Power Spectral Density	11b/11g/11n20	1/6/6.5 Mbps	1/7/13
Adaptivity (adaptive equipment using modulations other than FHSS)	11b/11g/11n20	1/6/6.5 Mbps	1/13
Occupied Channel Bandwidth	11b/11g/11n20	1/6/6.5 Mbps	1/13
Transmitter unwanted emissions in the out-of-band domain	11b/11g/11n20	1/6/6.5 Mbps	1/13
Transmitter unwanted emissions in the spurious domain	11b/11g/11n20	1/6/6.5 Mbps	1/13
Receiver spurious emissions	11b/11g/11n20	1/6/6.5 Mbps	1/13
Receiver Blocking	11b	1 Mbps	1/13

Mode	Channel	Channel Number	Frequency (MHz)
802.11b	HIGH/MIDDLE/LOW(H/M/L)	13/7/1	2472/2442/2412
802.11g	HIGH/MIDDLE/LOW(H/M/L)	13/7/1	2472/2442/2412
802.11n20	HIGH/MIDDLE/LOW(H/M/L)	13/7/1	2472/2442/2412

2.6 Additional Instructions

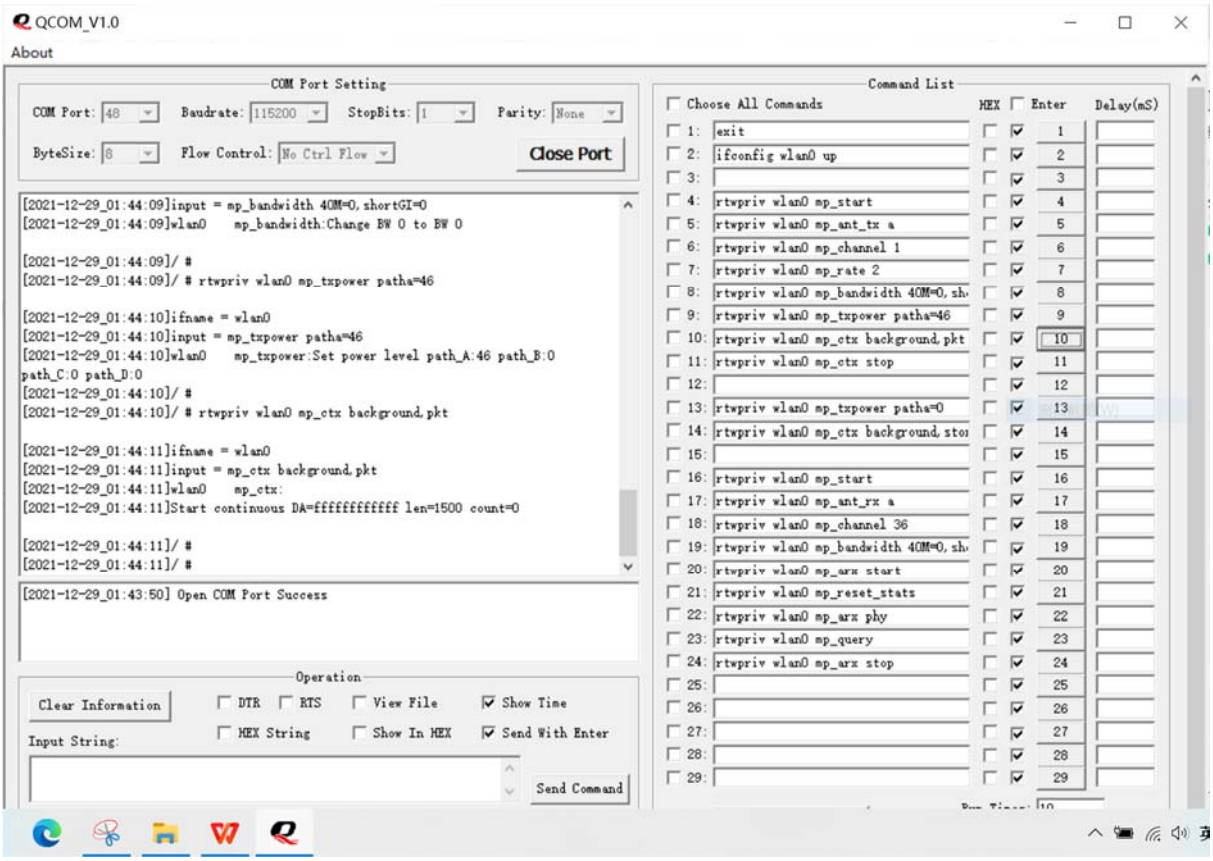
EUT Software Settings:

Mode	☒ Special software is used. The software provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.

During testing, Channel and Power Controlling Software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product.

Power level setup in software			
Test Software Version	QCOM		
Support Units (Software installation media)	Description	Manufacturer	Model
	Notebook	HP	N/A
Mode	Channel	Soft Set	
802.11b	All	46	
802.11g	All	54	
802.11n20	All	54	

Run software:



3 SUMMARY OF TEST RESULTS

No.	Identity	Document Title
1	AS/NZS 4268:2017	Radio equipment and systems - Short range devices - Limits and methods of measurement
2	ETSI EN 300 328 V2.2.2 (2019-07)	Wideband transmission systems; Data transmission equipment operating in the 2,4 GHz band; Harmonised Standard for access to radio spectrum

Test items and the results are as follows:

Report Section	Standard Rule	Description	Channel	Test Result	Verdict	Remark
Transmitter Parameters						
5.1.1	4.3.2.2	RF output power	Low/Middle/High	ANNEX A.1	Pass	--
5.1.2	4.3.2.3	Power Spectral Density	Low/Middle/High	ANNEX A.2	Pass	--
5.1.3	4.3.2.4	Duty Cycle, Tx-sequence, Tx-gap	--	ANNEX A.3	N/A	Note [1], Note [2]
5.1.4	4.3.2.5	Medium Utilization (MU) factor	--	ANNEX A.4	N/A	Note [1], Note [2]
5.1.5	4.3.2.6	Adaptivity (adaptive equipment using modulations other than FHSS)	Low/ High	ANNEX A.5	Pass	Note [2], Note [3]
5.1.6	4.3.2.7	Occupied Channel Bandwidth	Low/ High	ANNEX A.6	Pass	--
5.1.7	4.3.2.8	Transmitter unwanted emissions in the out-of-band domain	Low/ High	ANNEX A.7	Pass	--
5.1.8	4.3.2.9	Transmitter unwanted emissions in the spurious domain	Low/ High	ANNEX A.8	Pass	--
Receiver Parameters						
5.2.1	4.2.3.2	Receiver categories	--	--	--	--
5.2.2	4.3.2.10	Receiver spurious emissions	Low/ High	ANNEX A.9	Pass	--
5.2.3	4.3.2.11	Receiver Blocking	Low/ High	ANNEX A.10	Pass	--
Other Parameters						
5.3.1	4.3.2.12	Geo-location capability	--	--	N/A	Note [4]

Note [1]: This requirement apply to non-adaptive equipment or to adaptive equipment when operating in a non-adaptive mode. The equipment is using wide band modulations other than FHSS.
Note [2]: This requirement do not apply for equipment with a maximum declared RF Output power level of less than 10 dBm e.i.r.p. or for equipment when operating in a mode where the RF Output power is less than 10 dBm e.i.r.p.
Note [3]: This requirement does not apply to non-adaptive equipment or adaptive equipment operating in a non-adaptive mode.
Note [4]: This requirement does not apply to devices that do not support Geo-location capability.

4 GENERAL TEST CONFIGURATIONS

4.1 Test Environments

During the measurement, the normal environmental conditions were within the listed ranges:

Relative Humidity	30% to 75%	
Atmospheric Pressure	98 kPa to 102 kPa	
Temperature	NT (Normal Temperature)	+22℃ to +25℃
	LT (Low Temperature)	-10℃
	HT (High Temperature)	+40℃
Working Voltage of the EUT	NV (Normal Voltage)	5.0 V

4.2 Test Equipment List

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
Spectrum Analyzer	ROHDE&SCHWARZ	FSV-30	103118	2021.08.09	2022.08.08
Spectrum Analyzer	KEYSIGHT	N9020A	MY56060183	2021.09.08	2022.09.07
Vector Signal Generator	ROHDE&SCHWARZ	SMBV100A	260592	2021.01.27	2022.01.26
Signal Generator	ROHDE&SCHWARZ	SMB100A	177746	2021.08.24	2022.08.23
Switch Unit with OSP-B157	ROHDE&SCHWARZ	OSP120	101270	2021.06.01	2022.05.31
Bluetooth Signaling Unit	ROHDE&SCHWARZ	CMW270	100607	2021.06.01	2022.05.31
Bluetooth Signaling Unit	ROHDE&SCHWARZ	CMW500	142028	2021.06.01	2022.05.31
DC Power Supply	ITECH	IT6720	60010301071 7610007	2021.09.22	2022.09.21
Temperature Chamber	AHK	NTH64-40A	1310	2022.01.05	2023.01.04
EMI Receiver	KEYSIGHT	N9038A	MY53220118	2021.09.13	2022.09.12
Test Antenna-Loop(9 kHz-30 MHz)	SCHWARZBECK	FMZB 1519	1519-037	2021.04.16	2024.04.15
Test Antenna-Bi-Log(30 MHz-3 GHz)	SCHWARZBECK	VULB 9163	9163-624	2021.08.20	2024.08.19
Test Antenna-Horn(1-18 GHz)	SCHWARZBECK	BBHA 9120D	9120D-1917	2019.07.02	2022.07.01
Test Antenna-Horn (18-40 GHz)	A-INFO	LB-180400KF	J211060273	2021.07.02	2024.07.01
Anechoic Chamber	RAINFORD	9m*6m*6m	N/A	2021.09.04	2024.09.03

4.3 Test Software List

Description	Manufacturer	Software Version	Serial No.
TS8997 EMC32	ROHDE&SCHWARZ	V10.00.00	N/A

4.4 Measurement Uncertainty

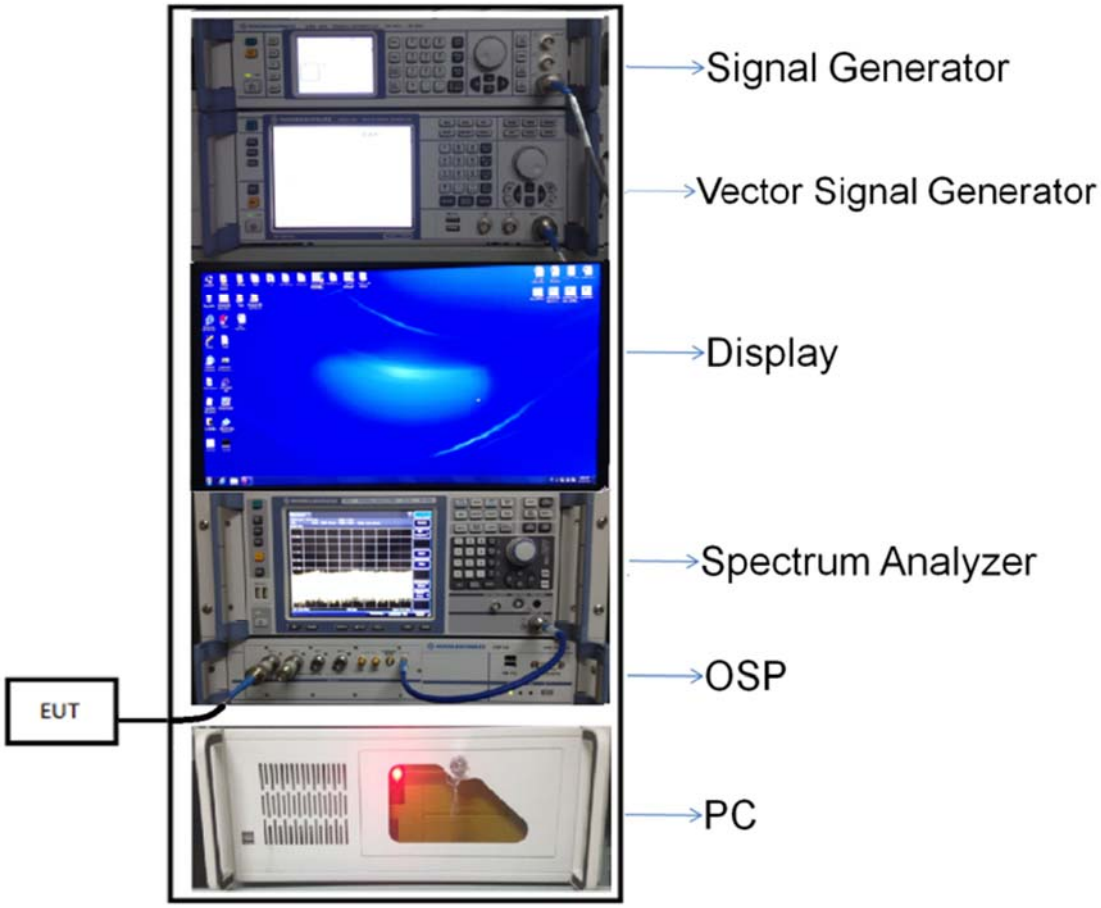
The following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2.

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Parameters	Uncertainty
Occupied Channel Bandwidth	3.6 %
RF output power, conducted	0.66 dB
Power Spectral Density, conducted	0.90 dB
Unwanted Emissions, conducted	1.78 dB
All emissions, radiated	5.36 dB
Temperature	0.82 °C
Humidity	4.1 %

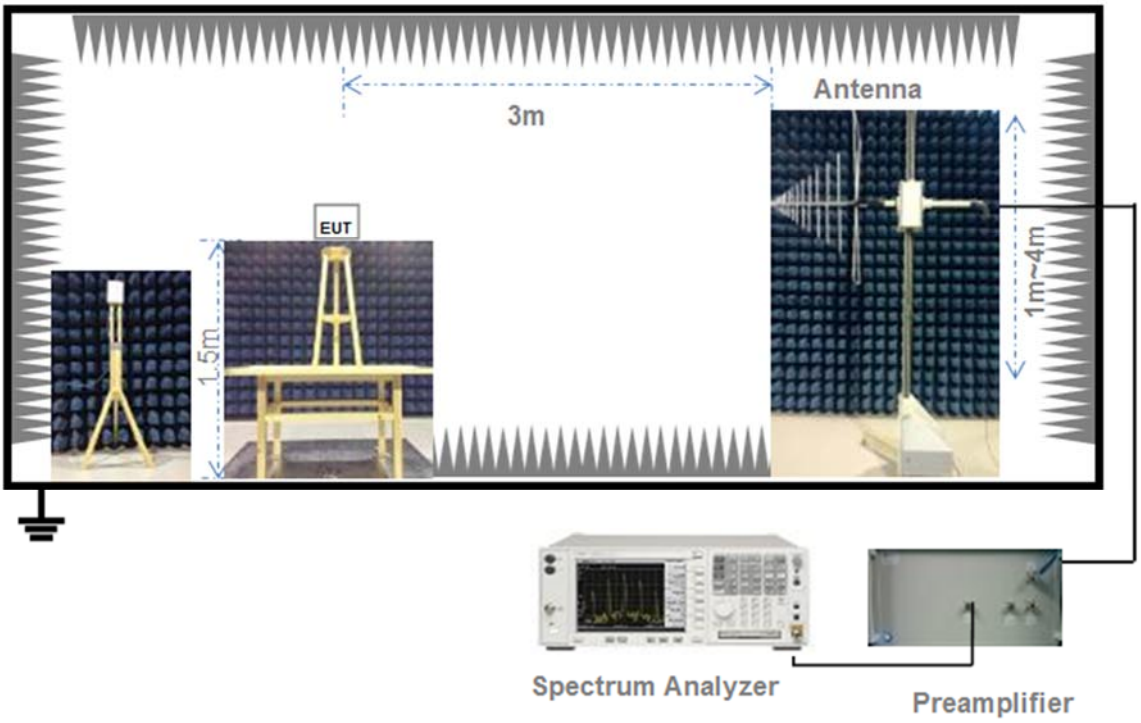
4.5 Description of Test Setup

4.5.1 For Conducted Test

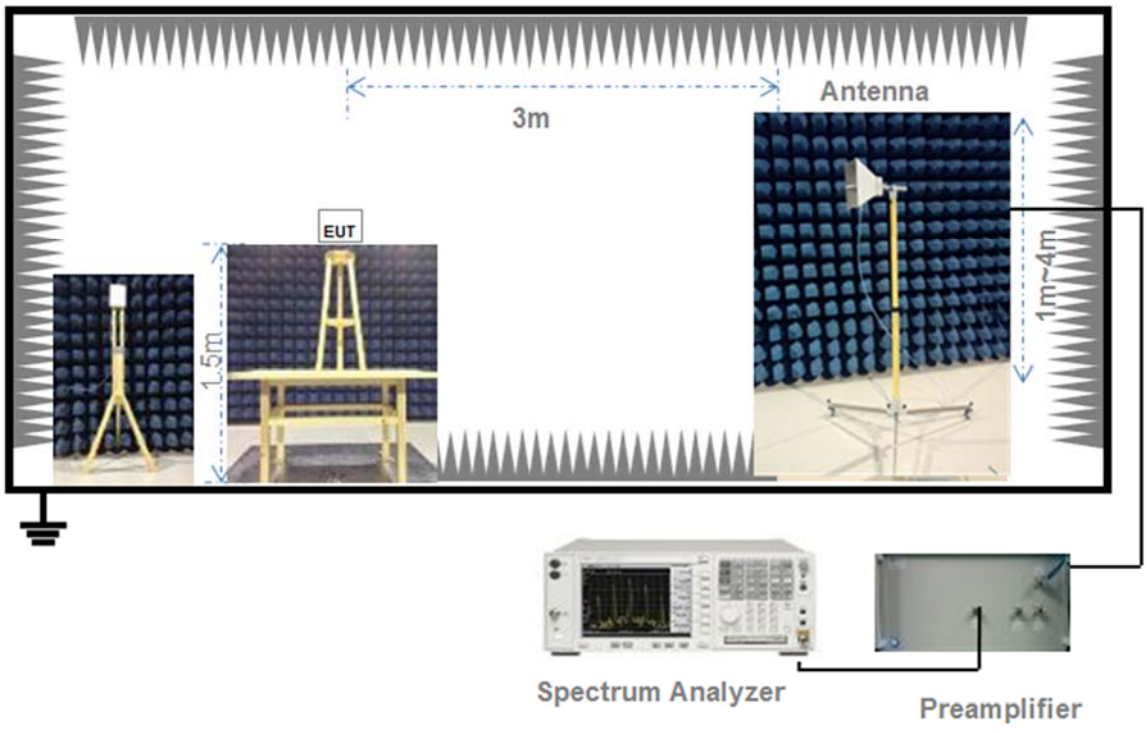


(Diagram 1)

4.5.2 For Radiated Test

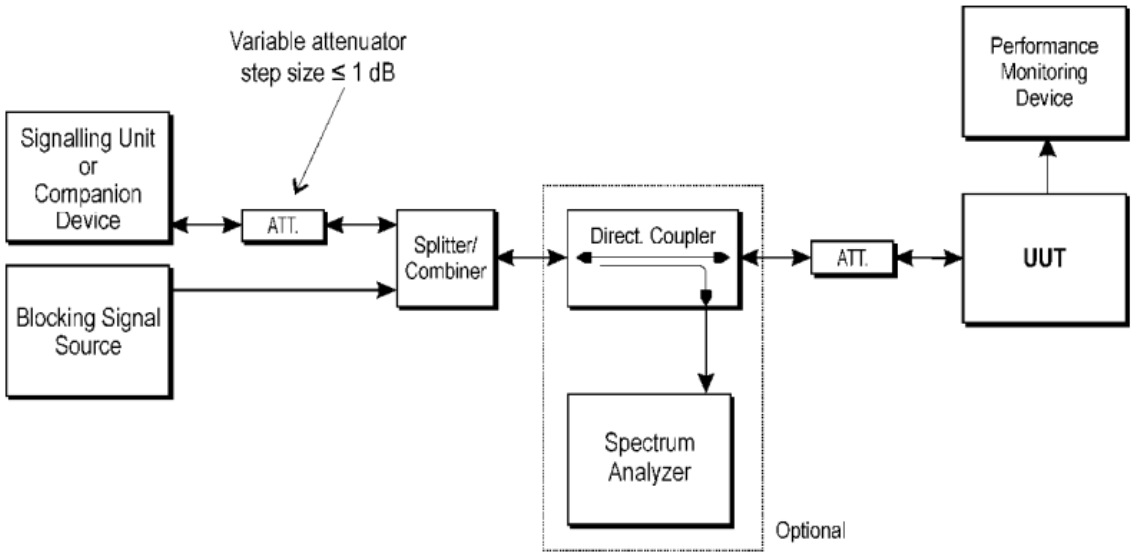


(Diagram 2)



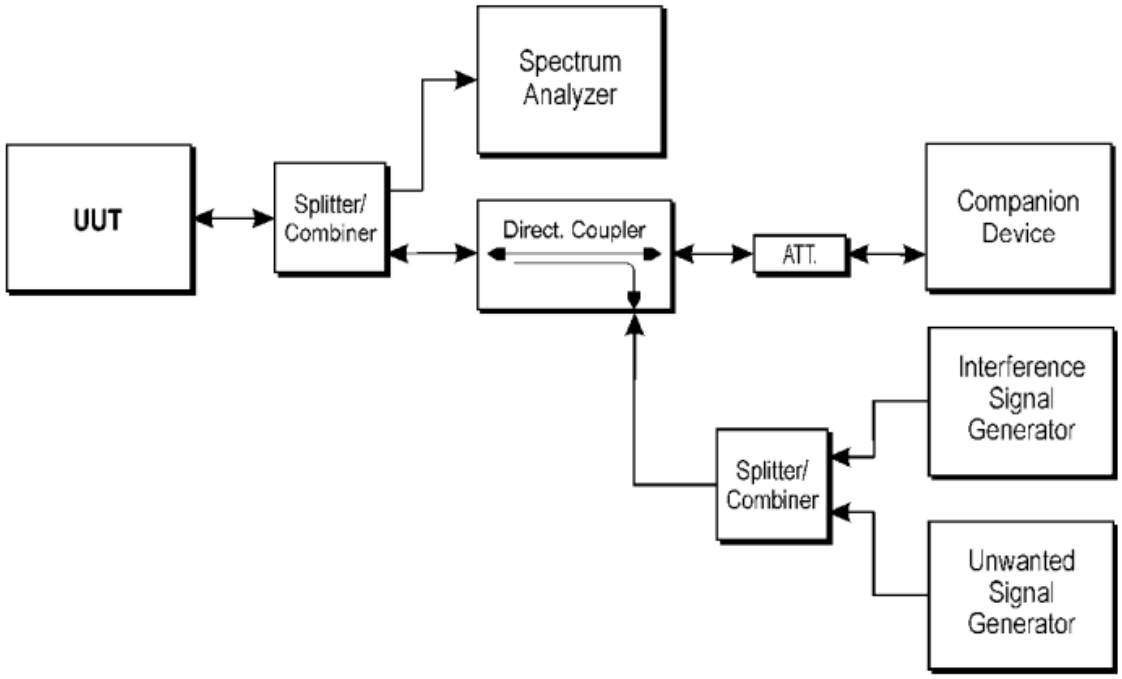
(Diagram 3)

4.5.3 For Receiver Blocking Test



(Diagram 4)

4.5.4 For Adaptivity Test



(Diagram 5)

5 Test Type and Test Results

5.1 Transmitter Parameters

5.1.1 RF output power

5.1.1.1 Limit

The RF output power for non-FHSS equipment shall be equal to or less than 20 dBm.

5.1.1.2 Test Setup

The section 4.5.1 (Diagram 1) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

5.1.1.3 Test Procedure

Reference to ETSI EN 300 328 V2.2.2 clause 5.4.2.2.

5.1.1.4 Test Result

Please refer to ANNEX A.1.

5.1.2 Power Spectral Density

5.1.2.1 Limit

The maximum Power Spectral Density for non-FHSS equipment is 10 dBm per MHz.

5.1.2.2 Test Setup

The section 4.5.1 (Diagram 1) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

5.1.2.3 Test Procedure

T Reference to ETSI EN 300 328 V2.2.2 clause 5.4.3.2.

5.1.2.4 Test Result

Please refer to ANNEX A.2.

5.1.3 Duty Cycle, Tx-sequence, Tx-gap

5.1.3.1 Limit

Non-FHSS equipment shall comply with the following:

• The Duty Cycle shall be equal to or less than the maximum value declared by the manufacturer.

• The Tx-sequence time shall be equal to or less than 10 ms.

• The minimum Tx-gap time following a Tx-sequence shall be equal to the duration of that proceeding Txsequence with a minimum of 3,5 ms.

5.1.3.2 Test Setup

The section 4.5.1 (Diagram 1) test setup description was used for this test.

5.1.3.3 Test Procedure

Reference to ETSI EN 300 328 V2.2.2 clause 5.4.2.2.

5.1.3.4 Test Result

Please refer to ANNEX A.3.

.

5.1.4 Medium Utilization (MU) factor

5.1.4.1 Limit

The maximum Medium Utilization factor for non-adaptive non-FHSS equipment shall be 10 %.

5.1.4.2 Test Setup

The section 4.5.1 (Diagram 1) test setup description was used for this test.

5.1.4.3 Test Procedure

Reference to ETSI EN 300 328 V2.2.2 clause 5.4.2.2.

5.1.4.4 Test Procedure

Please refer to ANNEX A.4.

5.1.5 Adaptivity (adaptive equipment using modulations other than FHSS)

5.1.5.1 Limit

Requirement	Operational Mode			
	Non-LBT based Detect and Avoid	LBT based Detect and Avoid		
		Frame Based Equipment	Load Based Equipment (CCA using 'energy detect')	Load Based Equipment (CCA not using any of the mechanisms referenced as Note [2])
Minimum Clear Channel Assessment (CCA) Time	NA	18 us (see Note [1])	(see Note [2])	18 us (see Note [1])
Maximum Channel Occupancy (COT) Time	40 ms	1 ms to 10 ms	(see Note [2])	13 ms
Minimum Idle Period	5% of COT	5% of COT	(see Note [2])	NA
Extended CCA check	NA	NA	(see Note [2])	a random duration in the range between 18 µs and at least 160 µs
Short Control Signalling Transmissions	Maximum duty cycle of 10 % within an observation period of 50 ms (see Note [3])			

Note [1]: The CCA time used by the equipment shall be declared by the supplier.
Note [2]: Load Based Equipment may implement an LBT based spectrum sharing mechanism based on the Clear Channel Assessment (CCA) mode using energy detect, as described in IEEE 802.11™-2012 [i.3] clause 9, clause 10, clause 16, clause 17, clause 19 and clause 20, or in IEEE 802.15.4™-2011 [i.4], clause 4, clause 5 and clause 8.
Note [3]: Adaptive equipment may or may not have Short Control Signalling Transmissions.
Note [4]: The Idle Period is considered to be equal to the CCA or Extended CCA time defined in clause 4.3.2.6.3.2.3, step 1 and step 2.
Note [5]: The Idle Period in between transmissions is considered to be the CCA or the Extended CCA check as there are no transmissions during this period.

Interference threshold level:

Maximum transmit power (P_H) EIRP dBm	Threshold level (TL)
20	-70 dBm / MHz
Note [1]: TL = -70 dBm/MHz + 10 × log10 (100 mW / Pout) (Pout in mW e.i.r.p.). Note [2]: transmitter the CCA threshold level (TL) shall be equal or lower than -70 dBm/MHz at the input to the receiver (assuming a 0 dBi receive antenna).	

Unwanted Signal parameters

Wanted signal mean power from companion device	Unwanted signal frequency (MHz)	Unwanted CW signal power (dBm)
sufficient to maintain the link (see Note [2])	2 395 or 2 488,5 (see Note [1])	-35 (see Note [3])
Note [1]: The highest frequency shall be used for testing operating channels within the range 2400 MHz to 2442 MHz, while the lowest frequency shall be used for testing operating channels within the range 2 442 MHz to 2 483.5 MHz. See clause 5.4.6.1. Note [2]: A typical value which can be used in most cases is -50 dBm/MHz. Note [3]: The level specified is the level in front of the UUT antenna. In case of conducted measurements, this level has to be corrected by the actual antenna assembly gain.		

5.1.5.2 Test Setup

The section 4.5.1 (Diagram 1) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

5.1.5.3 Test Procedure

Reference to ETSI EN 300 328 V2.2.2 clause 5.4.6.2.

5.1.5.4 Test Result

Please refer to ANNEX A.5.

5.1.6 Occupied Channel Bandwidth

5.1.6.1 Limit

The Occupied Channel Bandwidth for each hopping frequency shall fall completely within the band 2400 MHz to 2483.5 MHz.

In addition, for non-adaptive non-FHSS equipment with e.i.r.p. greater than 10 dBm, the Occupied Channel Bandwidth shall be equal to or less than 20 MHz.

5.1.6.2 Test Setup

The section 4.5.1 (Diagram 1) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

5.1.6.3 Test Procedure

Reference to ETSI EN 300 328 V2.2.2 clause 5.4.7.2.

5.1.6.4 Test Result

Please refer to ANNEX A.6.

5.1.7 Transmitter unwanted emissions in the out-of-band domain

5.1.7.1 Limit

The transmitter unwanted emissions in the out-of-band domain but outside the allocated band, shall not exceed the values provided by the mask in figure 1.

NOTE: Within the 2 400 MHz to 2 483,5 MHz band, the Out-of-band emissions are fulfilled by compliance with the Occupied Channel Bandwidth requirement in §2.4 in this report.

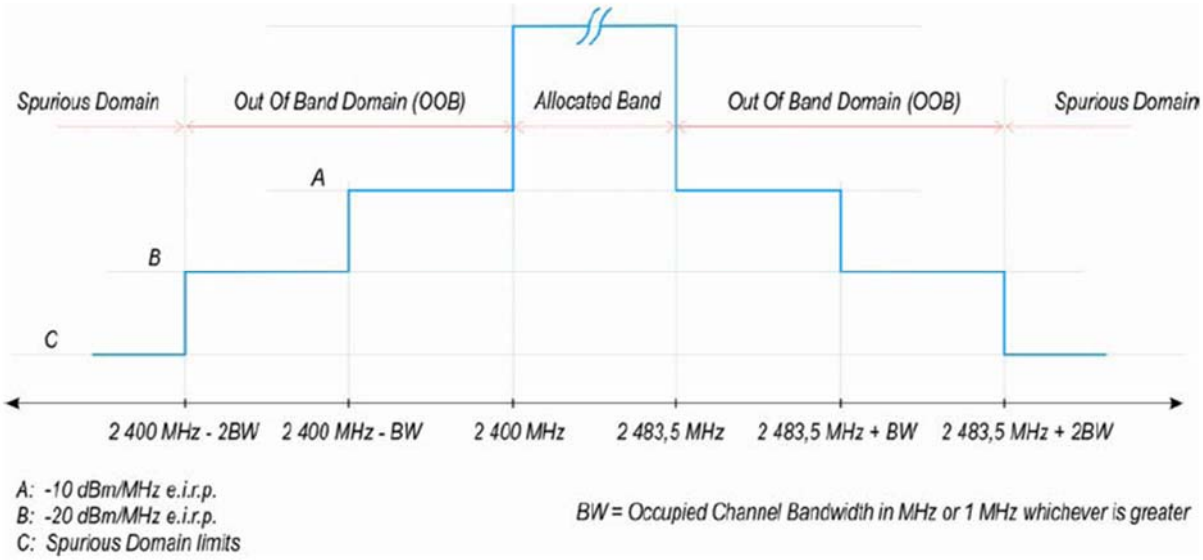


Figure 1: Transmit mask

5.1.7.2 Test Setup

The section 4.5.1 (Diagram 1) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

5.1.7.3 Test Procedure

Reference to ETSI EN 300 328 V2.2.2 clause 5.4.8.2.

5.1.7.4 Test Result

Please refer to ANNEX A.7.

5.1.8 Transmitter unwanted emissions in the spurious domain

5.1.8.1 Limit

The transmitter unwanted emissions in the spurious domain shall not exceed the values in following tables:

Frequency range	Maximum power (dBm)	Bandwidth
30 MHz to 47 MHz	-36	100 kHz
47 MHz to 74 MHz	-54	100 kHz
74 MHz to 87.5 MHz	-36	100 kHz
87.5 MHz to 118 MHz	-54	100 kHz
118 MHz to 174 MHz	-36	100 kHz
174 MHz to 230 MHz	-54	100 kHz
230 MHz to 470 MHz	-36	100 kHz
470 MHz to 694 MHz	-54	100 kHz
694 MHz to 1 GHz	-36	100 kHz
1 GHz to 12.75 GHz	-30	1 MHz

5.1.8.2 Test Setup

See the section 4.5.1 and 4.5.2 (Diagram 1, 2, 3) for test setup description. The photo of test setup please refer to ANNEX B.

5.1.8.3 Test Procedure

Reference to ETSI EN 300 328 V2.2.2 clause 5.4.9.2.

5.1.8.4 Test Result

Please refer to ANNEX A.8.

5.2 Receiver Parameters

5.2.1 Receiver categories

There have three different receiver categories for which different receiver requirements and/or corresponding limits apply.

Receiver Category

Receiver Category	Definition
category 1	Adaptive equipment with a maximum RF output power greater than 10 dBm e.i.r.p.
category 2	Non-adaptive equipment with a Medium Utilization (MU) factor greater than 1 % and less than or equal to 10 % or adaptive equipment and non-adaptive with a maximum RF output power of 10 dBm e.i.r.p.
category 3	Non-adaptive equipment with a maximum Medium Utilization (MU) factor of 1 % or adaptive equipment and non-adaptive with a maximum RF output power of 0 dBm e.i.r.p.

5.2.2 Receiver Spurious Emissions

5.2.2.1 Limit

Receiver spurious emissions are emissions at any frequency when the equipment is in receive mode.

The spurious emissions of the transmitter shall not exceed the values in following tables for the EUT in this report.

Frequency range	Maximum power (dBm)	Bandwidth
30 MHz to 1 GHz	-57	100 KHz
1 GHz to 12.75 GHz	-47	1 MHz

5.2.2.2 Test Setup

See the section 4.5.1 (Diagram 1) for test setup description. The photo of test setup please refer to ANNEX B.

5.2.2.3 Test Procedure

Reference to ETSI EN 300 328 V2.2.2 clause 5.4.10.2.

5.2.2.4 Test Result

Please refer to ANNEX A.9.

5.2.3 Receiver Blocking

Limit

While maintaining the minimum performance criteria as defined in clause 4.3.1.12.3, the blocking levels at specified frequency offsets shall be equal to or greater than the limits defined for the applicable receiver category provided in table.

Receiver Category 1 equipment

Wanted signal mean power from companion device (dBm) (see notes 1 and 4)	Blocking signal frequency(MHz)	Blocking signal power (dBm) (see note 4)	Type of blocking signal
(-133 dBm + 10 × $\log_{10}$(OCBW)) or -68 dBm whichever is less (see note 2)	2 380	-34	CW
	2 504	-34	CW
(-139 dBm + 10 × $\log_{10}$(OCBW)) or -74 dBm whichever is less (see note 3)	2 300	-34	CW
	2 330	-34	CW
	2 360	-34	CW
	2 524	-34	CW
	2 584	-34	CW
	2 674	-34	CW

Note [1]: OCBW is in Hz.

Note [2]: In case of radiated measurements using a companion device and the level of the wanted signal from the companion device cannot be determined, a relative test may be performed using a wanted signal up to P_{min} + 26 dB where P_{min} is the minimum level of wanted signal required to meet the minimum performance criteria as defined in clause 4.3.1.12.3 in the absence of any blocking signal. P_{min} is the minimum level of wanted signal (in dBm) required to meet the minimum performance criteria as defined in clause 4.3.1.12.3 in the absence of any blocking signal.

Note [3]: In case of radiated measurements using a companion device and the level of the wanted signal from the companion device cannot be determined, a relative test may be performed using a wanted signal up to P_{min} + 20 dB where P_{min} is the minimum level of wanted signal required to meet the minimum performance criteria as defined in clause 4.3.1.12.3 in the absence of any blocking signal.

Note [4]: The level specified is the level at the UUT receiver input assuming a 0 dBi antenna assembly gain. In case of conducted measurements, this level has to be corrected for the (in-band) antenna assembly gain (G). In case of radiated measurements, this level is equivalent to a power flux density (PFD) in front of the UUT antenna with the UUT being configured/positioned as recorded in clause 5.4.3.2.2.

Receiver Category 2 equipment

Wanted signal mean power from companion device (dBm) (see notes 1 and 3)	Blocking signal frequency (MHz)	Blocking signal power (dBm) (see note 3)	Type of blocking signal
(-139 dBm + 10 × $\log_{10}$(OCBW) + 10 dB) or (-74 dBm + 10 dB) whichever is less (see note 2)	2 380	-34	CW
	2 504	-34	CW
	2 300	-34	CW
	2 584	-34	CW

NOTE [1]: OCBW is in Hz.

NOTE [2]: In case of radiated measurements using a companion device and the level of the wanted signal from the companion device cannot be determined, a relative test may be performed using a wanted signal up to Pmin + 26 dB where Pmin is the minimum level of wanted signal required to meet the minimum performance criteria as defined in clause 4.3.1.12.3 in the absence of any blocking signal.

NOTE [3]: The level specified is the level at the UUT receiver input assuming a 0 dBi antenna assembly gain. In case of conducted measurements, this level has to be corrected for the (in-band) antenna assembly gain (G). In case of radiated measurements, this level is equivalent to a power flux density (PFD) in front of the UUT antenna with the UUT being configured/positioned as recorded in clause 5.4.3.2.2.

Receiver Category 3 equipment

Wanted signal mean power from companion device (dBm) (see notes 1 and 3)	Blocking signal frequency(MHz)	Blocking signal power (dBm) (see note 3)	Type of blocking signal
(-139 dBm + 10 × $\log_{10}$(OCBW) + 20 dB) or (-74 dBm + 20 dB) whichever is less (see note 2)	2 380	-34	CW
	2 504	-34	CW
	2 300	-34	CW
	2 584	-34	CW

NOTE [1]: OCBW is in Hz.

NOTE [2]: In case of radiated measurements using a companion device and the level of the wanted signal from the companion device cannot be determined, a relative test may be performed using a wanted signal up to Pmin + 30 dB where Pmin is the minimum level of wanted signal required to meet the minimum performance criteria as defined in clause 4.3.1.12.3 in the absence of any blocking signal.

NOTE [3]: The level specified is the level at the UUT receiver input assuming a 0 dBi antenna assembly gain. In case of conducted measurements, this level has to be corrected for the (in-band) antenna assembly gain (G). In case of radiated measurements, this level is equivalent to a power flux density (PFD) in front of the UUT antenna with the UUT being configured/positioned as recorded in clause 5.4.3.2.2.

5.2.3.1 Test Setup

See the section 4.5.3 (Diagram 4) for test setup description. The photo of test setup please refer to ANNEX B.

5.2.3.2 Test Procedure

Reference to ETSI EN 300 328 V2.2.2 clause 5.4.11.2.

5.2.3.3 Test Result

Please refer to ANNEX A.10.

5.3 Other Parameters

5.3.1 Geo-location capability

5.3.1.1 Requirements

The geographical location determined by the non-FHSS equipment as defined in clause 4.3.2.12.2 shall not be accessible to the user in a way that would allow the user to alter it.

5.3.1.2 Definition

Geo-location capability is a feature of the equipment to determine its geographical location with the purpose to configure itself according to the regulatory requirements applicable at the geographical location where it operates.
The geo-location capability may be present in the equipment or in an external device (temporary) associated with the equipment operating at the same geographical location during the initial power up of the equipment. The geographical location may also be available in equipment already installed and operating at the same geographical location.

5.3.1.3 Test Result

Note: Not applicable.

ANNEX A TEST RESULT

A.1 RF output power

Test Data

Note 1: EIRP Power = Conducted Power + Antenna Gain

Modulation Mode			802.11b		
Limit			20 dBm		
Test Result					
Test Method	Test Conditions		EIRP (dBm)		
	Voltage	Temperature	Low Channel	Middle Channel	High Channel
			EIRP	EIRP	EIRP
☐ Radiated ☒ Conducted	NV	NT	17.5	17.2	16.8
		LT	17.5	16.9	16.9
		HT	17.4	17.0	16.9
Test Verdict			Pass		

Modulation Mode			802.11g		
Limit			20 dBm		
Test Result					
Test Method	Test Conditions		EIRP (dBm)		
	Voltage	Temperature	Low Channel	Middle Channel	High Channel
			EIRP	EIRP	EIRP
☐ Radiated ☒ Conducted	NV	NT	17.1	16.9	16.3
		LT	17.2	16.5	16.5
		HT	17.0	17.1	16.4
Test Verdict			Pass		

Modulation Mode			802.11n(20 MHz)		
Limit			20 dBm		
Test Result					
Test Method	Test Conditions		EIRP (dBm)		
	Voltage	Temperature	Low Channel	Middle Channel	High Channel
			EIRP	EIRP	EIRP
☐ Radiated ☒ Conducted	NV	NT	17.2	16.7	16.5
		LT	16.8	16.8	16.5
		HT	17.1	16.9	16.4
Test Verdict			Pass		

Bursts Power List

802.11b: Low Channel

Burst RMS Power	Start Time	Stop Time	Tx_on	Tx_off
dBm	ms	ms	ms	ms
17.2	0.002	12.421	12.419	0.045
17.5	12.466	24.886	12.420	0.088
17.2	24.976	37.395	12.419	0.109
17.5	37.504	49.923	12.419	0.142
17.2	50.067	62.486	12.419	0.091
17.5	62.577	74.996	12.419	0.088
17.2	75.086	87.505	12.419	0.127
17.5	87.632	100.051	12.419	0.088
17.2	100.141	112.560	12.419	0.082
17.5	112.642	125.061	12.419	0.079
17.2	125.142	137.561	12.419	0.064
17.5	137.625	150.044	12.419	0.142
17.2	150.188	162.607	12.419	0.037
17.5	162.644	175.063	12.419	0.088
17.2	175.153	187.572	12.419	0.109
17.5	187.681	200.100	12.419	0.097
17.2	200.199	212.618	12.419	0.127
17.5	212.745	225.164	12.419	0.151
17.2	225.317	237.736	12.419	0.082
17.5	237.818	250.237	12.419	0.097
17.2	250.336	262.755	12.419	0.091
17.5	262.846	275.265	12.419	0.106
17.2	275.373	287.792	12.419	0.107
17.5	287.901	300.320	12.419	0.034
17.2	300.356	312.775	12.419	0.143
17.5	312.920	325.339	12.419	0.160
17.2	325.501	337.920	12.419	0.125
17.5	338.047	350.466	12.419	0.097
17.2	350.565	362.984	12.419	0.125
17.5	363.111	375.530	12.419	0.124
17.2	375.656	388.075	12.419	0.080
17.4	388.157	400.576	12.419	0.160
17.3	400.738	413.157	12.419	0.062
17.4	413.221	425.640	12.419	0.133

802.11b: Middle Channel

Burst RMS Power	Start Time	Stop Time	Tx_on	Tx_off
dBm	ms	ms	ms	ms
17.2	0.000	12.419	12.419	0.088
16.9	12.509	24.928	12.419	0.046
17.2	24.974	37.393	12.419	0.061
16.9	37.456	49.875	12.419	0.071
17.1	49.948	62.367	12.419	0.043
17.0	62.412	74.831	12.419	0.044
16.9	74.877	87.296	12.419	0.117
17.2	87.413	99.833	12.420	0.097
16.8	99.932	112.351	12.419	0.163
17.2	112.514	124.933	12.419	0.160
16.9	125.095	137.514	12.419	0.091
17.2	137.605	150.024	12.419	0.097
16.9	150.123	162.542	12.419	0.134
17.1	162.678	175.097	12.419	0.133
17.1	175.232	187.651	12.419	0.080
16.9	187.733	200.152	12.419	0.063
17.2	200.215	212.635	12.420	0.151
16.8	212.788	225.207	12.419	0.136
17.2	225.343	237.762	12.419	0.106
16.9	237.870	250.289	12.419	0.062
17.1	250.353	262.772	12.419	0.034
17.0	262.808	275.227	12.419	0.152
17.0	275.381	287.800	12.419	0.171
17.1	287.971	300.390	12.419	0.134
16.9	300.526	312.945	12.419	0.045
17.2	312.990	325.410	12.420	0.151
16.9	325.563	337.982	12.419	0.154
17.2	338.136	350.555	12.419	0.115
16.9	350.672	363.091	12.419	0.080
17.1	363.173	375.592	12.419	0.115
17.0	375.709	388.128	12.419	0.098
16.9	388.228	400.647	12.419	0.081
17.1	400.728	413.148	12.420	0.088
16.8	413.238	425.657	12.419	0.100

802.11b: High Channel

Burst RMS Power	Start Time	Stop Time	Tx_on	Tx_off
dBm	ms	ms	ms	ms
16.8	0.002	12.421	12.419	0.169
16.8	12.592	25.011	12.419	0.125
16.6	25.138	37.557	12.419	0.127
16.9	37.684	50.103	12.419	0.142
16.6	50.247	62.666	12.419	0.080
16.8	62.748	75.167	12.419	0.088
16.7	75.257	87.676	12.419	0.053
16.6	87.731	100.150	12.419	0.153
16.9	100.303	112.723	12.420	0.124
16.5	112.849	125.268	12.419	0.109
16.9	125.377	137.796	12.419	0.088
16.6	137.886	150.305	12.419	0.134
16.7	150.441	162.860	12.419	0.171
16.8	163.031	175.451	12.420	0.034
16.5	175.487	187.906	12.419	0.073
16.9	187.979	200.398	12.419	0.124
16.6	200.524	212.943	12.419	0.071
16.8	213.016	225.435	12.419	0.070
16.8	225.507	237.927	12.420	0.061
16.5	237.990	250.409	12.419	0.064
16.9	250.473	262.892	12.419	0.133
16.5	263.027	275.446	12.419	0.071
16.8	275.519	287.938	12.419	0.061
16.7	288.001	300.420	12.419	0.143
16.6	300.565	312.984	12.419	0.099
16.9	313.083	325.503	12.420	0.061
16.5	325.566	337.985	12.419	0.046
16.9	338.031	350.450	12.419	0.160
16.6	350.612	363.031	12.419	0.089
16.7	363.122	375.541	12.419	0.061
16.8	375.604	388.024	12.420	0.115
16.5	388.141	400.560	12.419	0.091
16.9	400.651	413.070	12.419	0.070
16.5	413.142	425.561	12.419	0.044

802.11g: Low Channel

Burst RMS Power	Start Time	Stop Time	Tx_on	Tx_off
dBm	ms	ms	ms	ms
17.1	0.000	2.068	2.068	0.160
17.1	2.228	4.295	2.067	0.152
17.2	4.447	6.515	2.068	0.043
17.2	6.560	8.625	2.065	0.089
17.2	8.716	10.781	2.065	0.071
17.2	10.854	12.919	2.065	0.170
17.2	13.091	15.156	2.065	0.089
17.2	15.247	17.312	2.065	0.125
17.2	17.439	19.504	2.065	0.143
17.2	19.649	21.714	2.065	0.161
17.2	21.877	23.942	2.065	0.053
17.2	23.997	26.062	2.065	0.143
17.1	26.207	28.272	2.065	0.053
17.1	28.325	30.392	2.067	0.157
17.1	30.549	32.617	2.068	0.169
17.1	32.786	34.853	2.067	0.134
17.2	34.987	37.055	2.068	0.142
17.2	37.199	39.264	2.065	0.143
17.2	39.409	41.474	2.065	0.080
17.2	41.556	43.621	2.065	0.161
17.2	43.784	45.849	2.065	0.116
17.2	45.967	48.032	2.065	0.035
17.2	48.069	50.134	2.065	0.134
17.2	50.270	52.335	2.065	0.107
17.2	52.444	54.509	2.065	0.053
17.2	54.564	56.629	2.065	0.170
17.2	56.801	58.866	2.065	0.161
17.1	59.027	61.094	2.067	0.143
17.1	61.237	63.304	2.067	0.106
17.1	63.410	65.478	2.068	0.124
17.1	65.602	67.669	2.067	0.143
17.2	67.812	69.879	2.067	0.053
17.2	69.934	71.999	2.065	0.098
17.2	72.099	74.164	2.065	0.080

802.11g: Middle Channel

Burst RMS Power	Start Time	Stop Time	Tx_on	Tx_off
dBm	ms	ms	ms	ms
17.1	0.002	2.067	2.065	0.125
17.1	2.194	4.259	2.065	0.062
17.0	4.323	6.388	2.065	0.152
17.0	6.542	8.607	2.065	0.080
17.0	8.689	10.754	2.065	0.107
17.0	10.863	12.928	2.065	0.161
17.0	13.089	15.156	2.067	0.124
17.0	15.280	17.348	2.068	0.034
17.0	17.382	19.449	2.067	0.161
17.0	19.612	21.677	2.065	0.098
17.0	21.777	23.842	2.065	0.062
17.0	23.906	25.971	2.065	0.152
17.0	26.125	28.190	2.065	0.071
17.1	28.263	30.328	2.065	0.134
17.1	30.464	32.529	2.065	0.080
17.1	32.611	34.676	2.065	0.170
17.1	34.848	36.913	2.065	0.107
17.0	37.022	39.087	2.065	0.062
17.0	39.151	41.216	2.065	0.107
17.0	41.325	43.390	2.065	0.062
17.0	43.454	45.519	2.065	0.161
17.0	45.680	47.747	2.067	0.053
17.0	47.800	49.867	2.067	0.034
17.0	49.901	51.969	2.068	0.088
17.0	52.057	54.125	2.068	0.151
17.0	54.276	56.343	2.067	0.098
17.0	56.443	58.508	2.065	0.125
17.0	58.635	60.700	2.065	0.161
17.1	60.863	62.928	2.065	0.062
17.1	62.992	65.057	2.065	0.107
17.1	65.166	67.231	2.065	0.143
17.1	67.376	69.441	2.065	0.080
17.0	69.523	71.588	2.065	0.143
17.0	71.733	73.798	2.065	0.125

802.11g: High Channel

Burst RMS Power	Start Time	Stop Time	Tx_on	Tx_off
dBm	ms	ms	ms	ms
16.5	0.000	2.067	2.067	0.143
16.5	2.212	4.278	2.066	0.151
16.5	4.431	6.496	2.065	0.170
16.5	6.668	8.733	2.065	0.134
16.5	8.869	10.934	2.065	0.134
16.5	11.070	13.135	2.065	0.107
16.5	13.244	15.309	2.065	0.152
16.5	15.463	17.528	2.065	0.161
16.5	17.691	19.756	2.065	0.170
16.5	19.928	21.993	2.065	0.053
16.5	22.048	24.113	2.065	0.107
16.5	24.222	26.287	2.065	0.170
16.5	26.459	28.524	2.065	0.161
16.5	28.685	30.752	2.067	0.142
16.5	30.894	32.962	2.068	0.052
16.5	33.014	35.082	2.068	0.151
16.5	35.233	37.300	2.067	0.161
16.5	37.461	39.528	2.067	0.044
16.5	39.574	41.639	2.065	0.080
16.5	41.721	43.786	2.065	0.071
16.5	43.859	45.924	2.065	0.170
16.5	46.096	48.161	2.065	0.044
16.5	48.207	50.272	2.065	0.089
16.5	50.363	52.428	2.065	0.098
16.5	52.528	54.593	2.065	0.134
16.5	54.729	56.794	2.065	0.143
16.5	56.939	59.004	2.065	0.035
16.5	59.041	61.106	2.065	0.098
16.5	61.206	63.271	2.065	0.098
16.5	63.369	65.436	2.067	0.106
16.5	65.542	67.610	2.068	0.151
16.5	67.761	69.829	2.068	0.070
16.5	69.899	71.967	2.068	0.034
16.5	72.003	74.069	2.066	0.043

802.11n(20 MHz): Low Channel

Burst RMS Power	Start Time	Stop Time	Tx_on	Tx_off
dBm	ms	ms	ms	ms
17.2	0.000	2.067	2.067	0.080
17.2	2.147	4.214	2.067	0.053
17.2	4.269	6.334	2.065	0.116
17.2	6.452	8.517	2.065	0.116
17.2	8.635	10.700	2.065	0.035
17.2	10.737	12.802	2.065	0.053
17.2	12.857	14.922	2.065	0.125
17.2	15.049	17.114	2.065	0.044
17.2	17.160	19.225	2.065	0.161
17.2	19.388	21.453	2.065	0.152
17.2	21.605	23.672	2.067	0.044
17.1	23.716	25.783	2.067	0.088
17.1	25.871	27.939	2.068	0.070
17.1	28.009	30.076	2.067	0.170
17.2	30.246	32.313	2.067	0.089
17.2	32.404	34.469	2.065	0.125
17.2	34.596	36.661	2.065	0.143
17.2	36.806	38.871	2.065	0.161
17.2	39.034	41.099	2.065	0.053
17.2	41.154	43.219	2.065	0.143
17.2	43.364	45.429	2.065	0.053
17.2	45.484	47.549	2.065	0.107
17.2	47.658	49.723	2.065	0.062
17.2	49.787	51.852	2.065	0.053
17.2	51.905	53.972	2.067	0.133
17.1	54.105	56.173	2.068	0.151
17.1	56.324	58.391	2.067	0.161
17.2	58.554	60.619	2.065	0.143
17.2	60.764	62.829	2.065	0.134
17.2	62.965	65.030	2.065	0.116
17.2	65.148	67.213	2.065	0.107
17.2	67.322	69.387	2.065	0.035
17.2	69.424	71.489	2.065	0.170
17.2	71.661	73.726	2.065	0.080

802.11n(20 MHz): Middle Channel

Burst RMS Power	Start Time	Stop Time	Tx_on	Tx_off
dBm	ms	ms	ms	ms
16.9	0.000	1.923	1.923	0.035
16.9	1.960	3.881	1.921	0.161
16.9	4.044	5.965	1.921	0.152
16.9	6.119	8.040	1.921	0.107
16.9	8.149	10.070	1.921	0.080
16.9	10.152	12.073	1.921	0.152
16.9	12.227	14.148	1.921	0.170
16.9	14.320	16.241	1.921	0.143
16.9	16.386	18.307	1.921	0.098
16.9	18.407	20.328	1.921	0.035
16.9	20.365	22.286	1.921	0.152
16.9	22.438	24.361	1.923	0.116
16.9	24.477	26.400	1.923	0.088
16.9	26.488	28.412	1.924	0.070
16.9	28.482	30.406	1.924	0.133
16.9	30.539	32.462	1.923	0.044
16.9	32.508	34.429	1.921	0.089
16.9	34.520	36.441	1.921	0.053
16.9	36.496	38.417	1.921	0.143
16.9	38.562	40.483	1.921	0.107
16.9	40.592	42.513	1.921	0.116
16.9	42.631	44.552	1.921	0.161
16.9	44.715	46.636	1.921	0.116
16.9	46.754	48.675	1.921	0.080
16.9	48.757	50.678	1.921	0.035
16.9	50.715	52.636	1.921	0.080
16.9	52.718	54.639	1.921	0.089
16.9	54.728	56.651	1.923	0.052
16.9	56.703	58.627	1.924	0.160
16.9	58.787	60.711	1.924	0.169
16.9	60.880	62.804	1.924	0.115
16.9	62.919	64.842	1.923	0.161
16.9	65.005	66.926	1.921	0.035
16.9	66.963	68.884	1.921	0.134

802.11n(20 MHz): High Channel

Burst RMS Power	Start Time	Stop Time	Tx_on	Tx_off
dBm	ms	ms	ms	ms
16.4	0.002	1.923	1.921	0.053
16.4	1.976	3.899	1.923	0.106
16.4	4.005	5.929	1.924	0.061
16.4	5.990	7.913	1.923	0.071
16.4	7.984	9.908	1.924	0.034
16.4	9.944	11.865	1.921	0.134
16.4	12.001	13.922	1.921	0.134
16.4	14.058	15.979	1.921	0.170
16.5	16.151	18.072	1.921	0.035
16.4	18.109	20.030	1.921	0.152
16.4	20.184	22.105	1.921	0.080
16.4	22.187	24.108	1.921	0.143
16.4	24.253	26.174	1.921	0.143
16.4	26.319	28.240	1.921	0.035
16.4	28.277	30.198	1.921	0.134
16.4	30.334	32.255	1.921	0.116
16.4	32.371	34.294	1.923	0.062
16.4	34.356	36.279	1.923	0.115
16.4	36.394	38.318	1.924	0.169
16.4	38.487	40.411	1.924	0.115
16.4	40.528	42.449	1.921	0.143
16.4	42.594	44.516	1.922	0.088
16.4	44.606	46.527	1.921	0.071
16.4	46.600	48.521	1.921	0.089
16.4	48.612	50.533	1.921	0.053
16.4	50.588	52.509	1.921	0.062
16.4	52.573	54.494	1.921	0.098
16.4	54.594	56.515	1.921	0.107
16.4	56.624	58.545	1.921	0.035
16.4	58.582	60.503	1.921	0.134
16.4	60.639	62.560	1.921	0.125
16.4	62.687	64.608	1.921	0.098
16.4	64.706	66.629	1.923	0.125
16.4	66.754	68.677	1.923	0.115

A.2 Power spectral density

Measuring Parameter

Frequency Range		
2400 MHz to 2483.5 MHz	RBW (MHz)	10 kHz
	VBW (MHz)	30 kHz
	Sweep points	8351
	Detector mode	RMS
	Trace mode	Max Hold
	Sweep time	100s

Test Data

Note 1: The Power density is ERIP Power density, which is contain antenna gain

Modulation Mode			802.11b		
Limit			10 dBm/MHz		
Test Result					
Test Method	Test Conditions		Power density (dBm/MHz)		
☐ Radiated ☒ Conducted	Temperature	Voltage	Low Channel Power Spectral density	Middle Channel Power Spectral density	High Channel Power Spectral density
	NT	NV	8.44	8.15	7.77
Test Verdict			Pass		

Modulation Mode			802.11g		
Limit			10 dBm/MHz		
Test Result					
Test Method	Test Conditions		Power density (dBm/MHz)		
☐ Radiated ☒ Conducted	Temperature	Voltage	Low Channel Power Spectral density	Middle Channel Power Spectral density	High Channel Power Spectral density
	NT	NV	5.63	5.42	4.85
Test Verdict			Pass		

Modulation Mode			802.11n(20 MHz)		
Limit			10 dBm/MHz		
Test Result					
Test Method	Test Conditions		Power density (dBm/MHz)		
☐ Radiated ☒ Conducted	Temperature	Voltage	Low Channel Power Spectral density	Middle Channel Power Spectral density	High Channel Power Spectral density
	NT	NV	5.50	5.08	4.74
Test Verdict			Pass		

A.3 Duty Cycle, Tx-sequence, Tx-gap

Note: The maximum value of Duty Cycle declared by the supplier.

Test Data

Duty Cycle (%)	Limit Duty Cycle (%)Note1	Number of Bursts	Minimum Tx-On (ms)	Maximum Tx-On (ms)	Minimum Tx-Off (ms)	Maximum Tx-Off (ms)	Measurement Time (ms)	Comment
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Note: Not applicable.

A.4 Medium Utilization (MU) factor

Medium Utilization (MU) (%)	Limit Medium Utilization (MU) (%)	Verdict
--	10	--

Note: Not applicable.

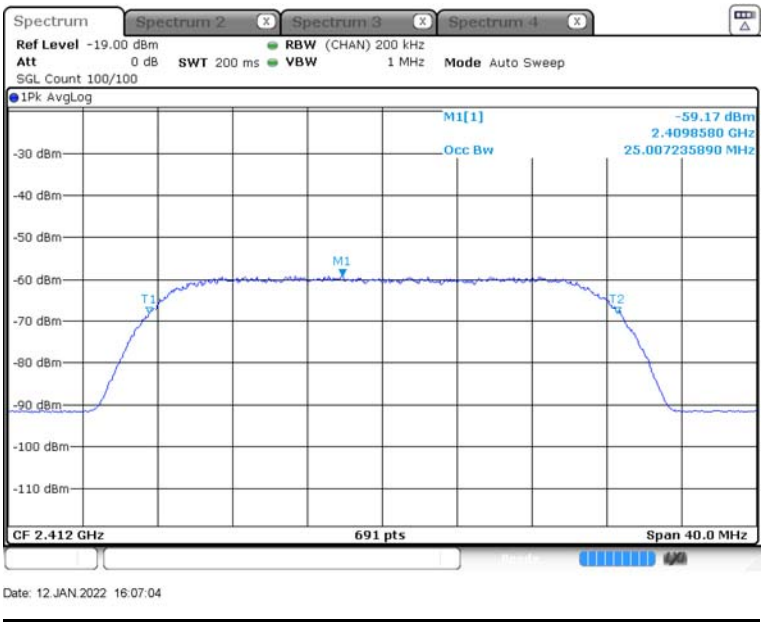
A.5 Adaptivity (adaptive equipment using modulations other than FHSS)

Test Method and Interference threshold level

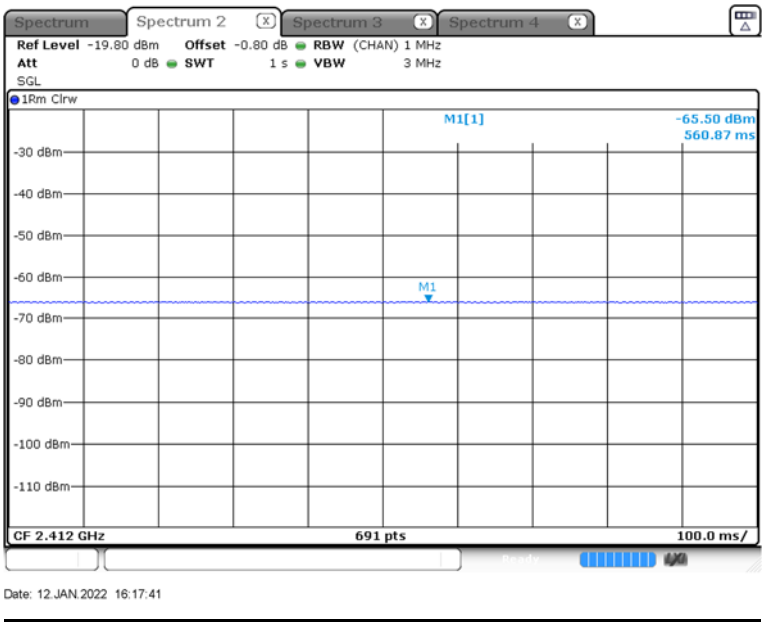
Test Method	Interference threshold level
☐ Radiated ☒ Conducted	The maximum EIRP power is 17.5 dBm and antenna gain is 2.0 dBi. Threshold level= -70 dBm/MHz + G + 10 × $\log_{10}$ (100 mW / Pout) = -65.50 dBm/MHz .The interference signal level to the UUT is -65.50 dBm/MHz

Test plot

99% Bandwidth (802.11b)



Threshold level (802.11b)



Test Data

Test step 1

Test Conditions	Test Result							
Temperature	Voltage	Test Mode	Frequency (MHz)	COT (ms)	Limit (ms)	CCA Time (μs)	Idle Period (ms)	Limit (μs)
NT	NV	802.11b	2412	12.42	13	161	0.161	18
			2472	12.42	13	171	0.171	18
		802.11g	2412	2.07	13	170	0.170	18
			2472	2.07	13	194	0.194	18
		802.11n (20 MHz)	2412	2.07	13	170	0.170	18
			2472	1.92	13	189	0.189	18
Note: Wanted signal mean power from companion device is -50 dBm/MHz.								
Test Verdict	Pass							

Test step 2

Note: The least monitoring time during the adaptivity test is 60s, please refer to the test plot as shown below.

Test step 2_2nd

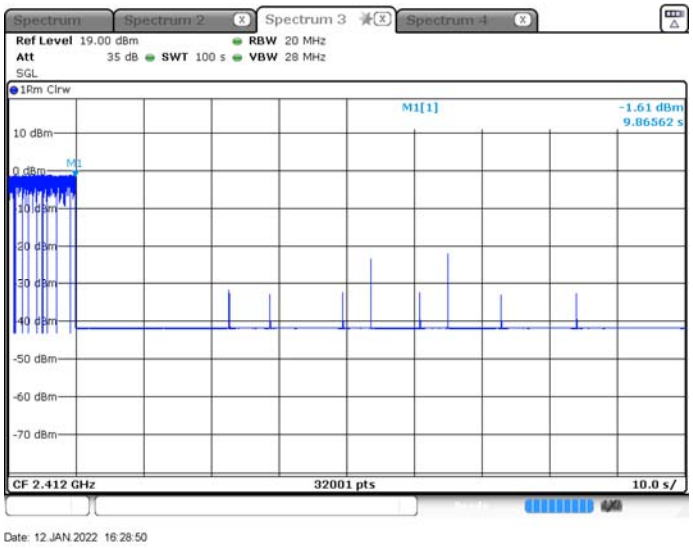
Temperature	Voltage	Test Mode	Frequency (MHz)	Number of Bursts	Short Signalling (%)	Limit (%)
NT	NV	802.11b	2412	5	2.6360	10
			2472	2	8.9856	10
		802.11g	2412	5	2.6360	10
			2472	1	8.4058	10
		802.11n (20 MHz)	2412	0	0.0000	10
			2472	1	7.5362	10

The step 3

Note: The least monitoring time during the blocking test is 60s, please refer to the test plot as shown below.

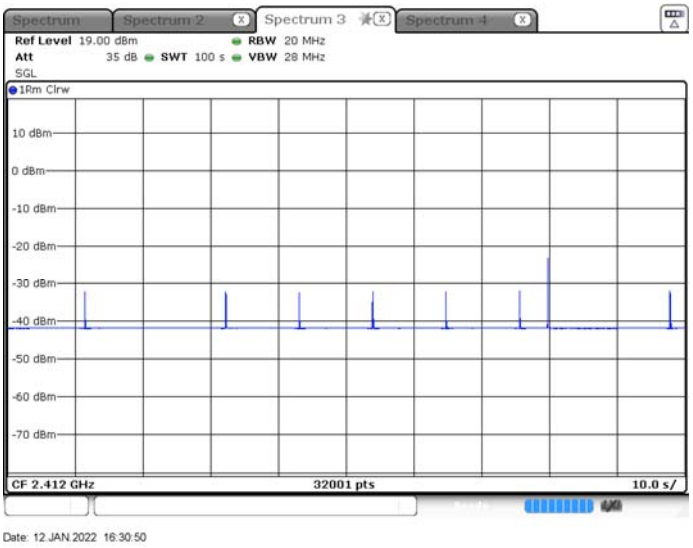
Test Plots

802.11b: Low Channel Step 2 Interferer on / Blocker off



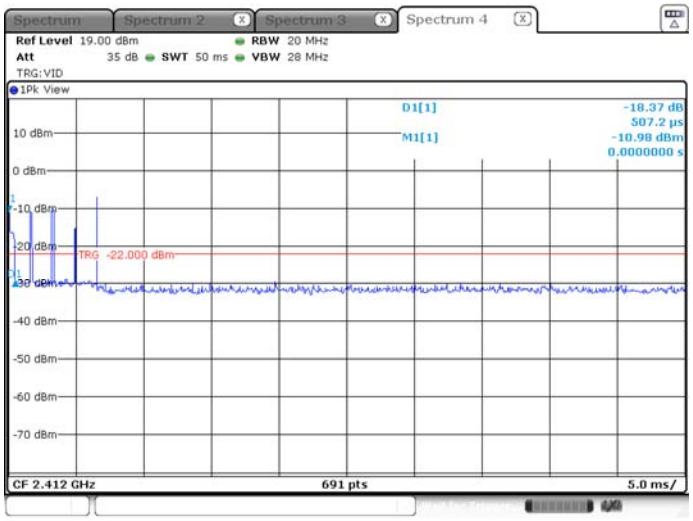
Date: 12.JAN.2022 16:28:50

802.11b: Low Channel Step 3 Interferer on / Blocker on



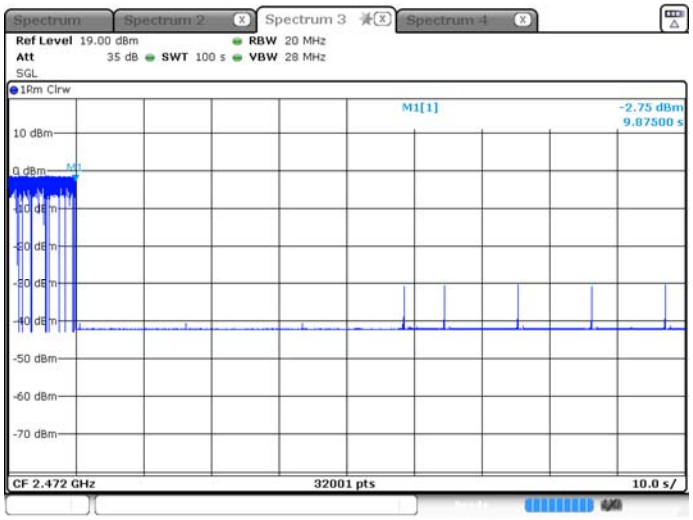
Date: 12.JAN.2022 16:30:50

802.11b: Low Channel Short Signalling



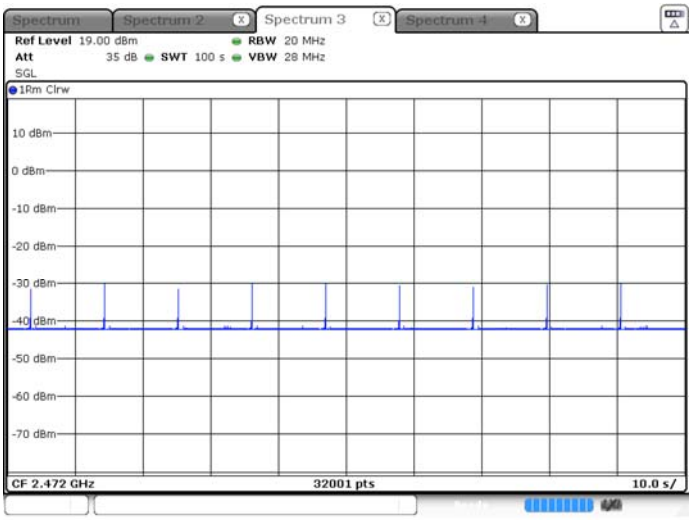
Date: 12.JAN.2022 16:32:14

802.11b: High Channel Step 2 Interferer on / Blocker off



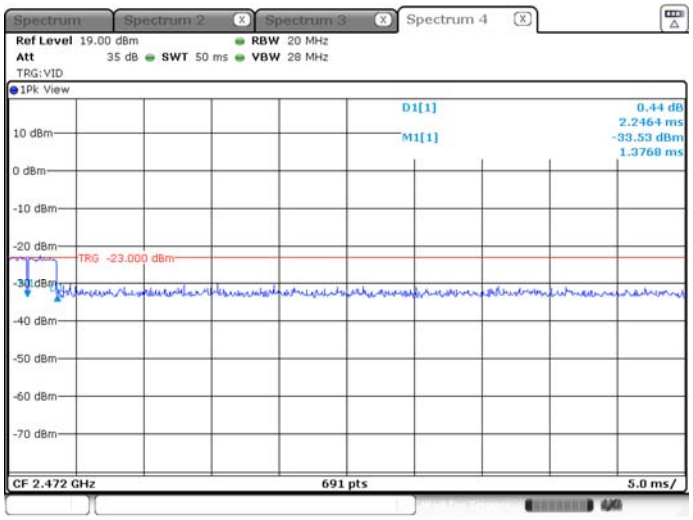
Date: 12.JAN.2022 16:35:51

802.11b: High Channel Step 3 Interferer on / Blocker on



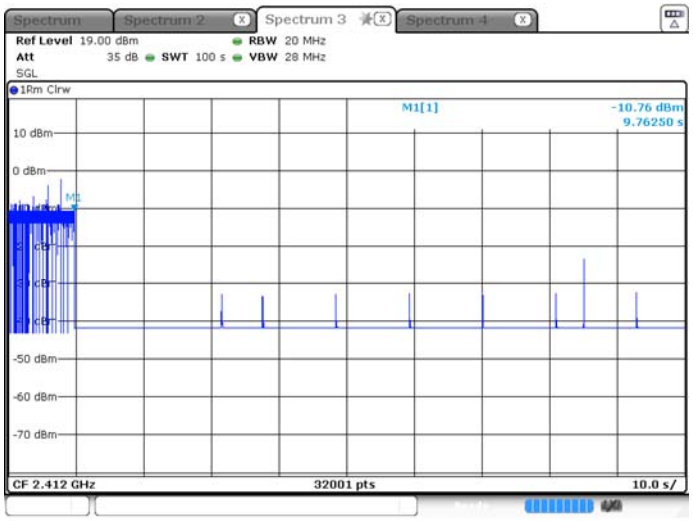
Date: 12.JAN.2022 16:39:18

802.11b: High Channel Short Signalling



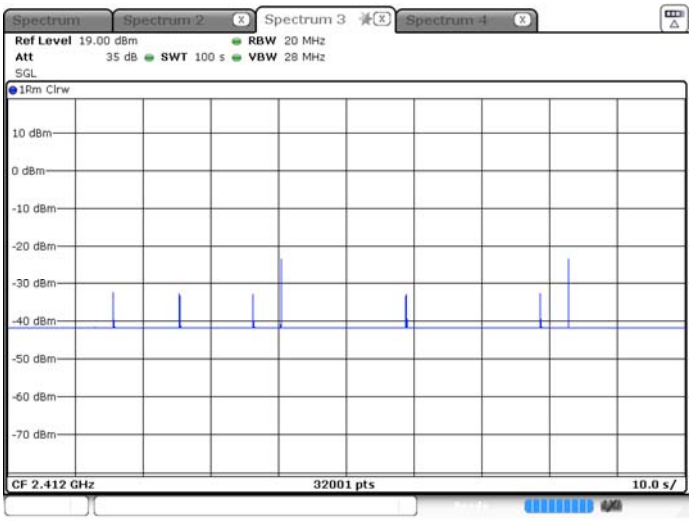
Date: 12.JAN.2022 16:42:25

802.11g: Low Channel Step 2 Interferer on / Blocker off



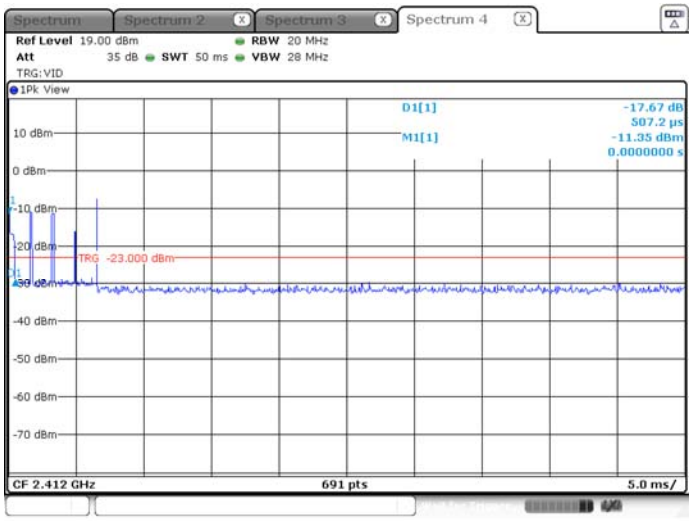
Date: 12.JAN.2022 16:54:30

802.11g: Low Channel Step 3 Interferer on / Blocker on



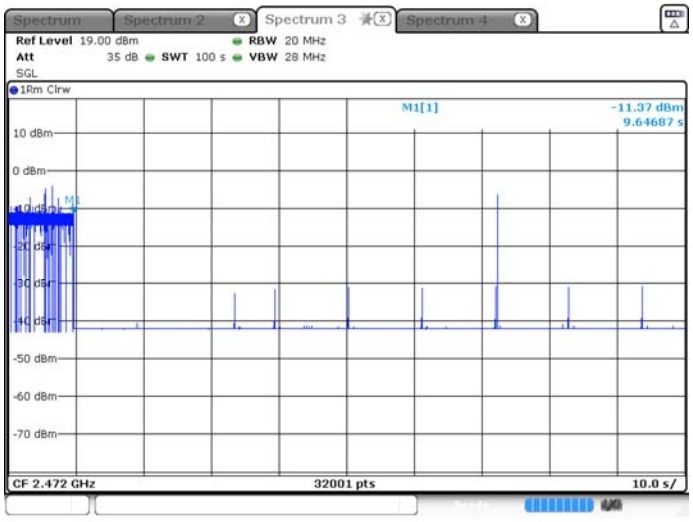
Date: 12.JAN.2022 16:56:26

802.11g: Low Channel Short Signalling



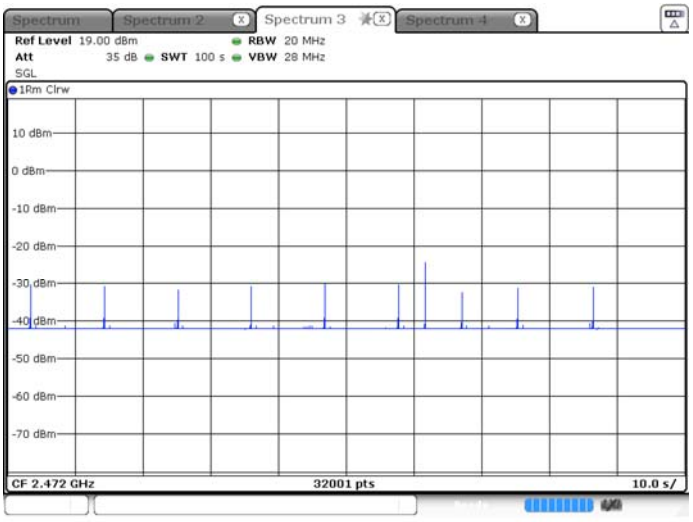
Date: 12.JAN.2022 16:57:56

802.11g: High Channel Step 2 Interferer on / Blocker off



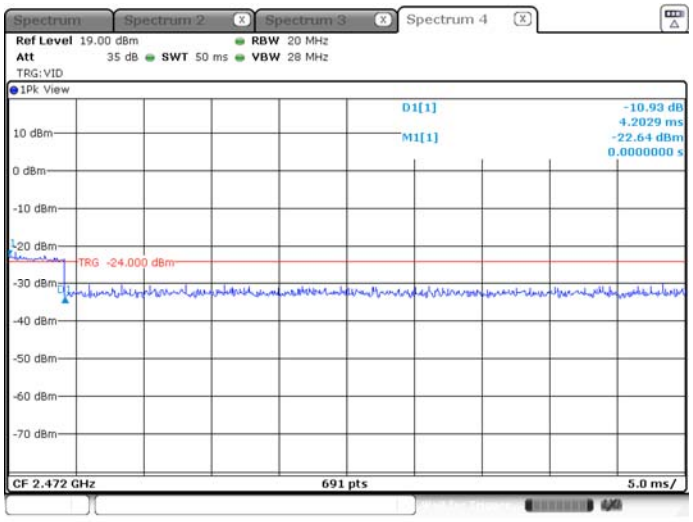
Date: 12.JAN.2022 16:46:22

802.11g: High Channel Step 3 Interferer on / Blocker on



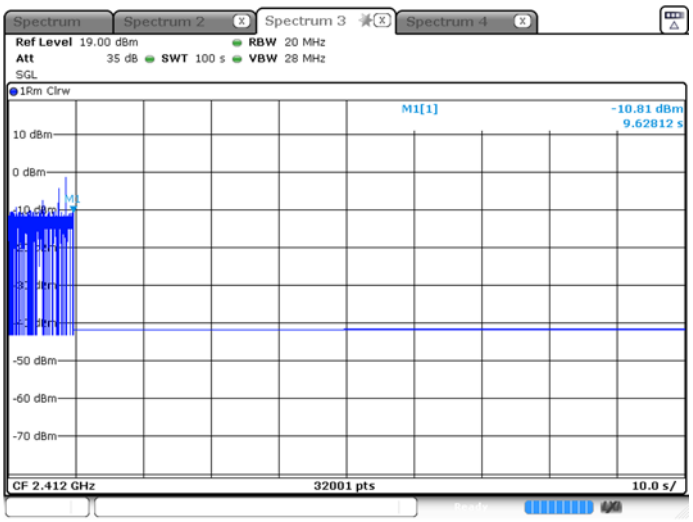
Date: 12.JAN.2022 16:48:22

802.11g: High Channel Short Signalling



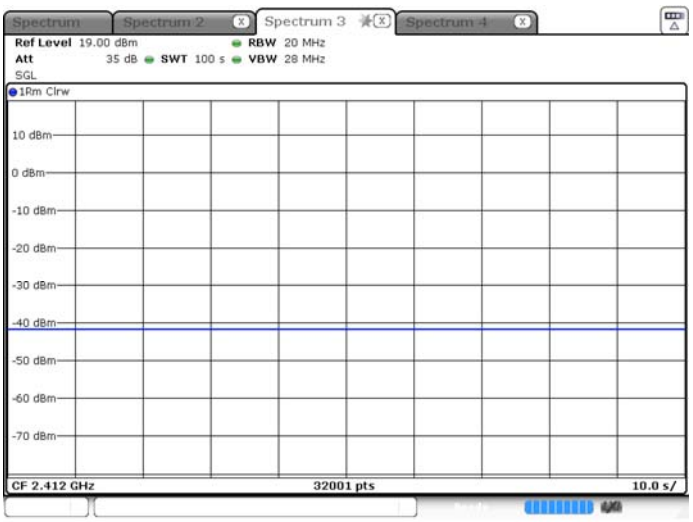
Date: 12.JAN.2022 16:48:56

802.11n(20 MHz): Low Channel Step 2 Interferer on / Blocker off



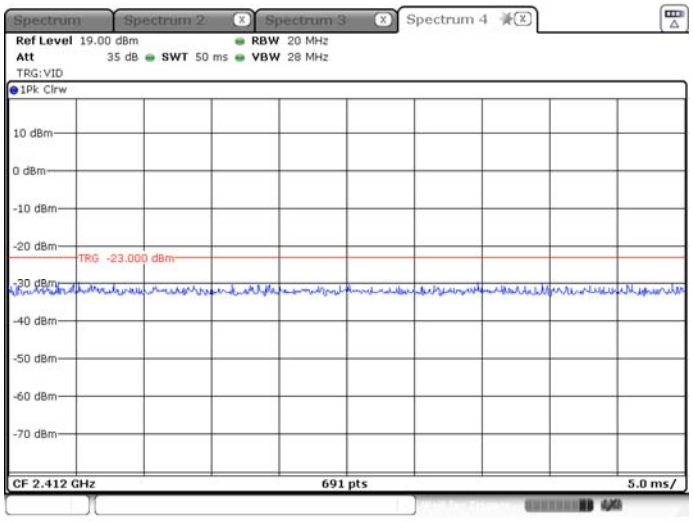
Date: 12.JAN.2022 17:01:02

802.11n(20 MHz): Low Channel Step 3 Interferer on / Blocker on



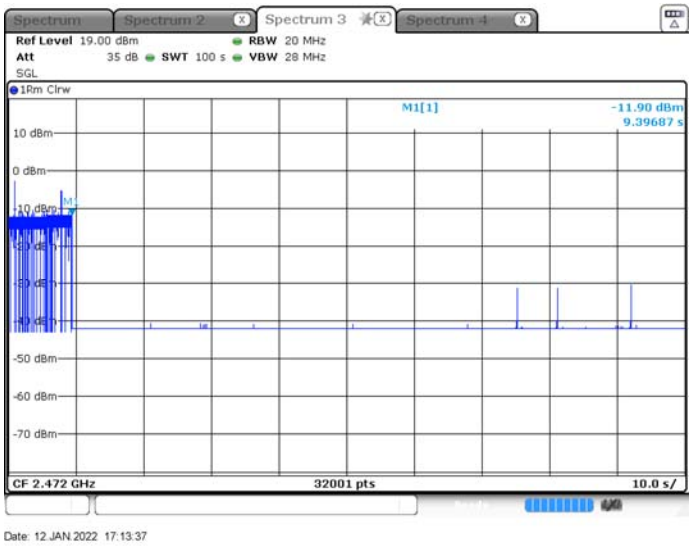
Date: 12.JAN.2022 17:04:49

802.11n(20 MHz): Low Channel Short Signalling



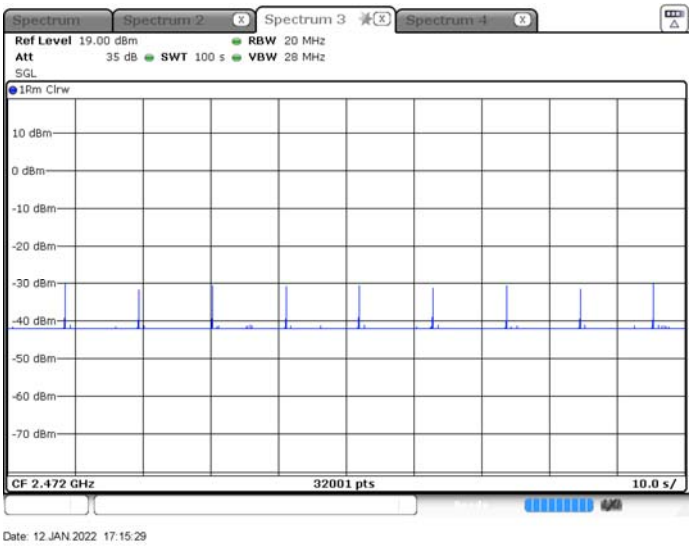
Date: 12.JAN.2022 17:05:08

802.11n(20 MHz): High Channel Step 2 Interferer on / Blocker off



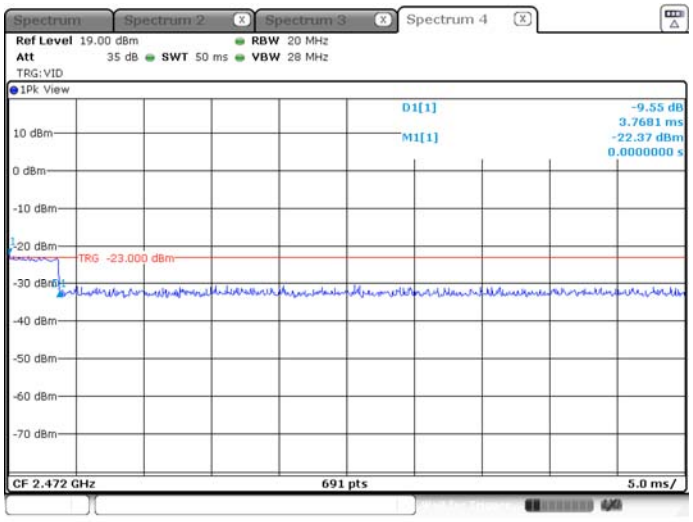
Date: 12.JAN.2022 17:13:37

802.11n(20 MHz): High Channel Step 3 Interferer on / Blocker on



Date: 12.JAN.2022 17:15:29

802.11n(20 MHz): High Channel Short Signalling



Date: 12.JAN.2022 17:16:01

A.6 Occupied Channel Bandwidth

Measuring Parameter

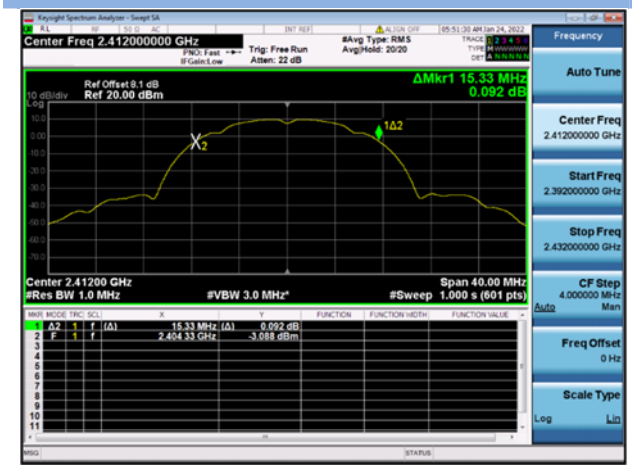
Centre Frequency	The centre frequency of the channel under test
RBW (MHz)	1 MHz
VBW (MHz)	3 MHz
Span (MHz)	40 MHz (for 20 MHz channel), 80 MHz (for 40 MHz channel)
Detector mode	RMS
Trace mode	Max Hold
Sweep time	Auto
Test Method	☐ Radiated ☒ Conducted

Test Data

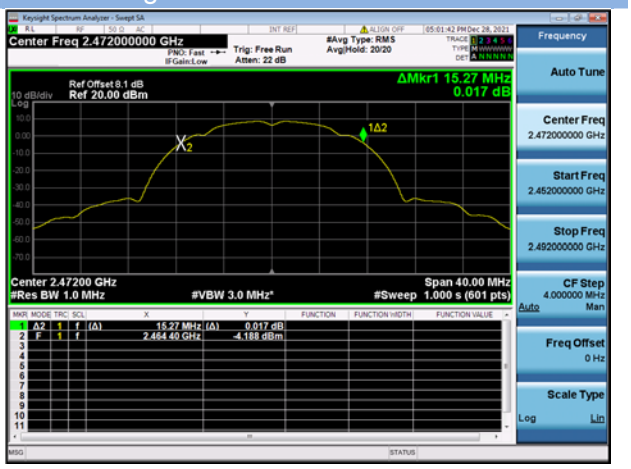
Test Conditions		Test Mode	DUT Frequency (MHz)	Occupied Channel Bandwidth (MHz)	Lower Band Edge (MHz)	Upper Band Edge (MHz)	Limit (MHz)
Temperature	Voltage						
NT	NV	802.11b	2412	17.20	2403.399902	2420.599902	Within The Band 2400 MHz to 2483.5 MHz
			2472	15.27	2464.399902	2479.669902	
		802.11g	2412	17.20	2403.466553	2420.666553	
			2472	17.20	2463.466553	2480.666553	
		802.11n (20 MHz)	2412	18.27	2402.933350	2421.203350	
			2472	18.27	2462.933350	2481.203350	
Test Verdict		Pass					

Test Plots

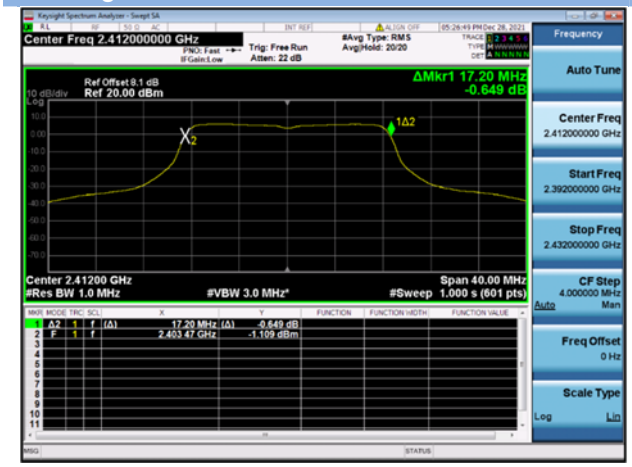
802.11b: Low Channel



802.11b: High Channel

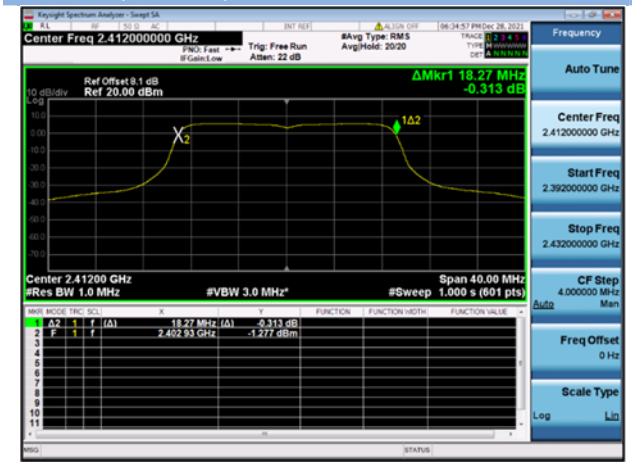


802.11g: Low Channel



802.11g: High Channel

802.11n(20 MHz): Low Channel



802.11n(20 MHz): High Channel

A.7 Transmitter unwanted emissions in the out-of-band domain

Test Data

802.11b

DUT Frequency (MHz)	Nominal Bandwidth (MHz)	Frequency (MHz)	Level (dBm)	Limit (dBm)	Result
2412	20	2380.0	-45.169	-10	PASS
2412	20	2381.0	-45.131	-10	PASS
2412	20	2382.0	-45.068	-10	PASS
2412	20	2383.0	-45.100	-10	PASS
2412	20	2384.0	-44.823	-10	PASS
2412	20	2385.0	-45.044	-10	PASS
2412	20	2386.0	-44.980	-10	PASS
2412	20	2387.0	-44.844	-10	PASS
2412	20	2388.0	-44.623	-10	PASS
2412	20	2389.0	-44.182	-10	PASS
2412	20	2390.0	-43.216	-10	PASS
2412	20	2391.0	-41.794	-10	PASS
2412	20	2392.0	-39.635	-10	PASS
2412	20	2393.0	-39.294	-10	PASS
2412	20	2394.0	-38.277	-10	PASS
2412	20	2395.0	-38.153	-10	PASS
2412	20	2396.0	-36.209	-10	PASS
2412	20	2397.0	-34.861	-10	PASS
2412	20	2398.0	-32.812	-10	PASS
2412	20	2399.0	-30.294	-10	PASS
2412	20	2400.0	-26.822	-10	PASS
2412	20	2360.0	-45.147	-20	PASS
2412	20	2361.0	-45.515	-20	PASS
2412	20	2362.0	-45.094	-20	PASS
2412	20	2363.0	-45.103	-20	PASS
2412	20	2364.0	-45.185	-20	PASS
2412	20	2365.0	-45.637	-20	PASS
2412	20	2366.0	-45.039	-20	PASS
2412	20	2367.0	-45.395	-20	PASS
2412	20	2368.0	-45.031	-20	PASS
2412	20	2369.0	-45.354	-20	PASS
2412	20	2370.0	-45.439	-20	PASS
2412	20	2371.0	-45.394	-20	PASS
2412	20	2372.0	-45.189	-20	PASS
2412	20	2373.0	-44.904	-20	PASS
2412	20	2374.0	-45.046	-20	PASS
2412	20	2375.0	-44.754	-20	PASS
2412	20	2376.0	-45.029	-20	PASS

2412	20	2377.0	-45.361	-20	PASS
2412	20	2378.0	-44.696	-20	PASS
2412	20	2379.0	-44.528	-20	PASS
2472	20	2483.5	-32.015	-10	PASS
2472	20	2484.5	-35.446	-10	PASS
2472	20	2485.5	-35.466	-10	PASS
2472	20	2486.5	-36.019	-10	PASS
2472	20	2487.5	-35.760	-10	PASS
2472	20	2488.5	-40.051	-10	PASS
2472	20	2489.5	-40.776	-10	PASS
2472	20	2490.5	-43.201	-10	PASS
2472	20	2491.5	-44.049	-10	PASS
2472	20	2492.5	-43.784	-10	PASS
2472	20	2493.5	-44.211	-10	PASS
2472	20	2494.5	-44.827	-10	PASS
2472	20	2495.5	-44.688	-10	PASS
2472	20	2496.5	-44.484	-10	PASS
2472	20	2497.5	-44.584	-10	PASS
2472	20	2498.5	-44.326	-10	PASS
2472	20	2499.5	-44.916	-10	PASS
2472	20	2500.5	-44.555	-10	PASS
2472	20	2501.5	-45.062	-10	PASS
2472	20	2502.5	-44.966	-10	PASS
2472	20	2503.5	-44.951	-10	PASS
2472	20	2504.5	-45.223	-20	PASS
2472	20	2505.5	-44.636	-20	PASS
2472	20	2506.5	-45.083	-20	PASS
2472	20	2507.5	-45.271	-20	PASS
2472	20	2508.5	-45.003	-20	PASS
2472	20	2509.5	-44.821	-20	PASS
2472	20	2510.5	-44.905	-20	PASS
2472	20	2511.5	-44.906	-20	PASS
2472	20	2512.5	-45.133	-20	PASS
2472	20	2513.5	-45.148	-20	PASS
2472	20	2514.5	-45.180	-20	PASS
2472	20	2515.5	-45.168	-20	PASS
2472	20	2516.5	-45.297	-20	PASS
2472	20	2517.5	-45.316	-20	PASS
2472	20	2518.5	-44.834	-20	PASS
2472	20	2519.5	-45.475	-20	PASS
2472	20	2520.5	-45.314	-20	PASS
2472	20	2521.5	-45.311	-20	PASS
2472	20	2522.5	-44.646	-20	PASS

802.11g

DUT Frequency (MHz)	Nominal Bandwidth (MHz)	Frequency (MHz)	Level (dBm)	Limit (dBm)	Result
2412	20	2380.0	-43.210	-10	PASS
2412	20	2381.0	-42.269	-10	PASS
2412	20	2382.0	-41.645	-10	PASS
2412	20	2383.0	-41.683	-10	PASS
2412	20	2384.0	-41.211	-10	PASS
2412	20	2385.0	-40.181	-10	PASS
2412	20	2386.0	-40.189	-10	PASS
2412	20	2387.0	-39.531	-10	PASS
2412	20	2388.0	-38.062	-10	PASS
2412	20	2389.0	-36.643	-10	PASS
2412	20	2390.0	-33.590	-10	PASS
2412	20	2391.0	-31.287	-10	PASS
2412	20	2392.0	-28.270	-10	PASS
2412	20	2393.0	-26.648	-10	PASS
2412	20	2394.0	-24.062	-10	PASS
2412	20	2395.0	-23.363	-10	PASS
2412	20	2396.0	-21.728	-10	PASS
2412	20	2397.0	-21.279	-10	PASS
2412	20	2398.0	-21.307	-10	PASS
2412	20	2399.0	-20.922	-10	PASS
2412	20	2400.0	-20.082	-10	PASS
2412	20	2360.0	-44.721	-20	PASS
2412	20	2361.0	-44.913	-20	PASS
2412	20	2362.0	-45.006	-20	PASS
2412	20	2363.0	-44.333	-20	PASS
2412	20	2364.0	-44.434	-20	PASS
2412	20	2365.0	-45.182	-20	PASS
2412	20	2366.0	-44.684	-20	PASS
2412	20	2367.0	-44.873	-20	PASS
2412	20	2368.0	-44.767	-20	PASS
2412	20	2369.0	-44.093	-20	PASS
2412	20	2370.0	-44.511	-20	PASS
2412	20	2371.0	-44.384	-20	PASS
2412	20	2372.0	-44.318	-20	PASS
2412	20	2373.0	-44.404	-20	PASS
2412	20	2374.0	-43.835	-20	PASS
2412	20	2375.0	-43.794	-20	PASS
2412	20	2376.0	-43.097	-20	PASS
2412	20	2377.0	-42.651	-20	PASS
2412	20	2378.0	-43.122	-20	PASS

2412	20	2379.0	-43.175	-20	PASS
2472	20	2483.5	-20.753	-10	PASS
2472	20	2484.5	-23.046	-10	PASS
2472	20	2485.5	-23.963	-10	PASS
2472	20	2486.5	-24.038	-10	PASS
2472	20	2487.5	-23.031	-10	PASS
2472	20	2488.5	-25.032	-10	PASS
2472	20	2489.5	-26.415	-10	PASS
2472	20	2490.5	-27.708	-10	PASS
2472	20	2491.5	-28.925	-10	PASS
2472	20	2492.5	-30.243	-10	PASS
2472	20	2493.5	-32.390	-10	PASS
2472	20	2494.5	-36.422	-10	PASS
2472	20	2495.5	-40.858	-10	PASS
2472	20	2496.5	-41.996	-10	PASS
2472	20	2497.5	-42.654	-10	PASS
2472	20	2498.5	-42.662	-10	PASS
2472	20	2499.5	-43.616	-10	PASS
2472	20	2500.5	-43.318	-10	PASS
2472	20	2501.5	-43.342	-10	PASS
2472	20	2502.5	-43.453	-10	PASS
2472	20	2503.5	-43.894	-10	PASS
2472	20	2504.5	-43.697	-20	PASS
2472	20	2505.5	-44.698	-20	PASS
2472	20	2506.5	-43.767	-20	PASS
2472	20	2507.5	-44.490	-20	PASS
2472	20	2508.5	-44.941	-20	PASS
2472	20	2509.5	-44.484	-20	PASS
2472	20	2510.5	-43.853	-20	PASS
2472	20	2511.5	-44.858	-20	PASS
2472	20	2512.5	-44.337	-20	PASS
2472	20	2513.5	-44.674	-20	PASS
2472	20	2514.5	-45.079	-20	PASS
2472	20	2515.5	-45.325	-20	PASS
2472	20	2516.5	-45.319	-20	PASS
2472	20	2517.5	-45.093	-20	PASS
2472	20	2518.5	-45.129	-20	PASS
2472	20	2519.5	-44.838	-20	PASS
2472	20	2520.5	-45.411	-20	PASS
2472	20	2521.5	-45.342	-20	PASS
2472	20	2522.5	-45.045	-20	PASS

802.11n(20 MHz)

DUT Frequency (MHz)	Nominal Bandwidth (MHz)	Frequency (MHz)	Level (dBm)	Limit (dBm)	Result
2412	20	2380.0	-42.257	-10	PASS
2412	20	2381.0	-40.904	-10	PASS
2412	20	2382.0	-41.248	-10	PASS
2412	20	2383.0	-41.383	-10	PASS
2412	20	2384.0	-38.723	-10	PASS
2412	20	2385.0	-39.808	-10	PASS
2412	20	2386.0	-40.194	-10	PASS
2412	20	2387.0	-39.138	-10	PASS
2412	20	2388.0	-36.226	-10	PASS
2412	20	2389.0	-31.984	-10	PASS
2412	20	2390.0	-30.743	-10	PASS
2412	20	2391.0	-28.816	-10	PASS
2412	20	2392.0	-27.140	-10	PASS
2412	20	2393.0	-25.845	-10	PASS
2412	20	2394.0	-25.094	-10	PASS
2412	20	2395.0	-24.680	-10	PASS
2412	20	2396.0	-23.792	-10	PASS
2412	20	2397.0	-22.113	-10	PASS
2412	20	2398.0	-21.658	-10	PASS
2412	20	2399.0	-21.305	-10	PASS
2412	20	2400.0	-19.759	-10	PASS
2412	20	2360.0	-44.772	-20	PASS
2412	20	2361.0	-44.302	-20	PASS
2412	20	2362.0	-45.042	-20	PASS
2412	20	2363.0	-44.785	-20	PASS
2412	20	2364.0	-44.965	-20	PASS
2412	20	2365.0	-44.677	-20	PASS
2412	20	2366.0	-44.765	-20	PASS
2412	20	2367.0	-44.862	-20	PASS
2412	20	2368.0	-44.894	-20	PASS
2412	20	2369.0	-43.798	-20	PASS
2412	20	2370.0	-44.386	-20	PASS
2412	20	2371.0	-44.578	-20	PASS
2412	20	2372.0	-43.769	-20	PASS
2412	20	2373.0	-43.853	-20	PASS
2412	20	2374.0	-44.062	-20	PASS
2412	20	2375.0	-44.116	-20	PASS
2412	20	2376.0	-42.637	-20	PASS
2412	20	2377.0	-42.409	-20	PASS
2412	20	2378.0	-42.762	-20	PASS

2412	20	2379.0	-41.645	-20	PASS
2472	20	2483.5	-21.147	-10	PASS
2472	20	2484.5	-21.960	-10	PASS
2472	20	2485.5	-22.369	-10	PASS
2472	20	2486.5	-23.419	-10	PASS
2472	20	2487.5	-24.794	-10	PASS
2472	20	2488.5	-24.676	-10	PASS
2472	20	2489.5	-25.855	-10	PASS
2472	20	2490.5	-26.249	-10	PASS
2472	20	2491.5	-25.493	-10	PASS
2472	20	2492.5	-26.810	-10	PASS
2472	20	2493.5	-28.530	-10	PASS
2472	20	2494.5	-31.733	-10	PASS
2472	20	2495.5	-35.711	-10	PASS
2472	20	2496.5	-39.177	-10	PASS
2472	20	2497.5	-41.190	-10	PASS
2472	20	2498.5	-42.676	-10	PASS
2472	20	2499.5	-42.294	-10	PASS
2472	20	2500.5	-43.220	-10	PASS
2472	20	2501.5	-43.153	-10	PASS
2472	20	2502.5	-42.896	-10	PASS
2472	20	2503.5	-43.608	-10	PASS
2472	20	2504.5	-43.428	-20	PASS
2472	20	2505.5	-43.997	-20	PASS
2472	20	2506.5	-44.247	-20	PASS
2472	20	2507.5	-44.835	-20	PASS
2472	20	2508.5	-45.054	-20	PASS
2472	20	2509.5	-44.801	-20	PASS
2472	20	2510.5	-44.850	-20	PASS
2472	20	2511.5	-45.034	-20	PASS
2472	20	2512.5	-44.946	-20	PASS
2472	20	2513.5	-44.796	-20	PASS
2472	20	2514.5	-44.940	-20	PASS
2472	20	2515.5	-45.283	-20	PASS
2472	20	2516.5	-44.712	-20	PASS
2472	20	2517.5	-45.173	-20	PASS
2472	20	2518.5	-45.139	-20	PASS
2472	20	2519.5	-45.133	-20	PASS
2472	20	2520.5	-44.804	-20	PASS
2472	20	2521.5	-44.866	-20	PASS
2472	20	2522.5	-45.522	-20	PASS

A.8 Transmitter unwanted emissions in the spurious domain

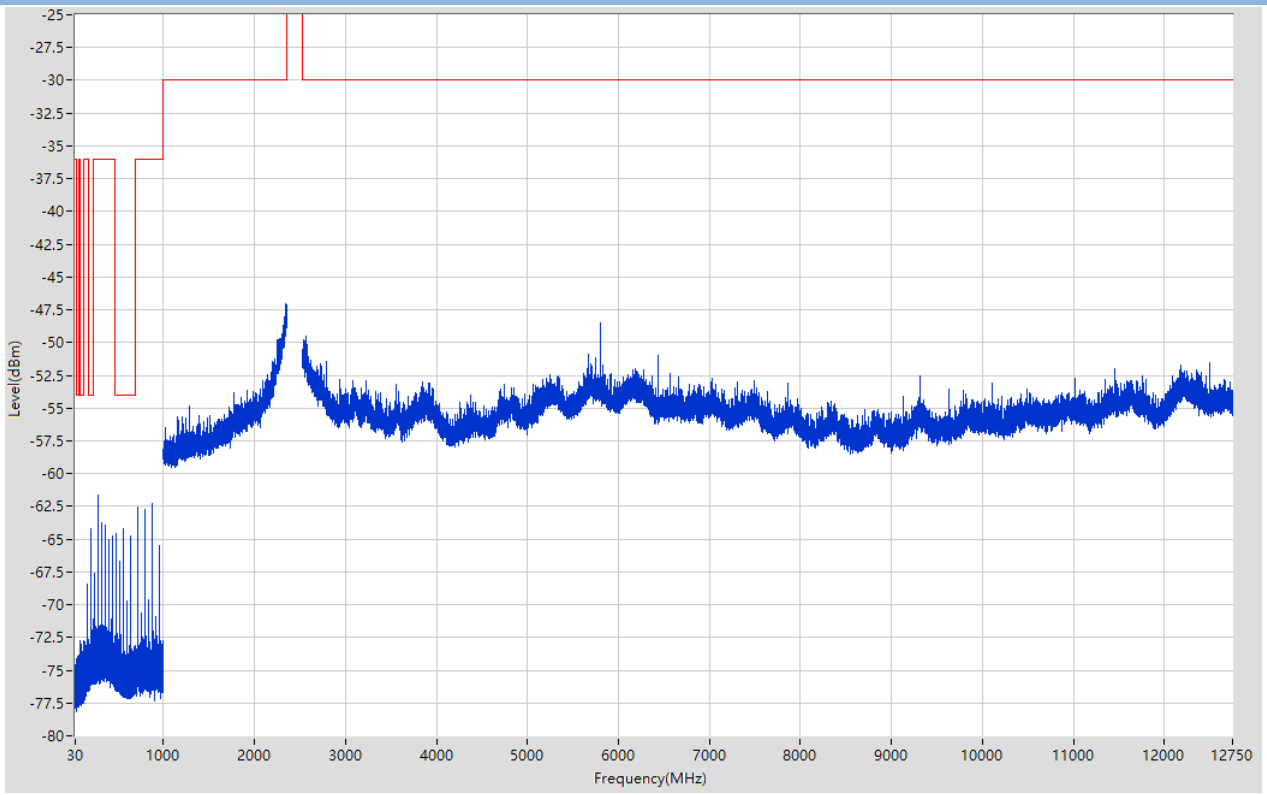
Note [1]: The test method choose the conducted method. Which power in a specified load (conducted spurious emissions) and their effective radiated power when radiated by the cabinet or structure of the equipment (cabinet radiation).
Note [2]: The Frequency band was pre-scanned, the harmonic and other spurious which worst frequency are recorded in the report.
Note [3]: The cabinet radiated test data is tested in the normal working mode of the product.

Measuring Parameter

Frequency Range		
30 MHz to 1 000 MHz	RBW (MHz)	100 kHz
	VBW (MHz)	300 kHz
	Sweep points	9970
	Detector mode	Peak
	Trace mode	Max Hold
1 GHz to 12,75 GHz	RBW (MHz)	1 MHz
	VBW (MHz)	3 MHz
	Sweep points	11750
	Detector mode	Peak
	Trace mode	Max Hold

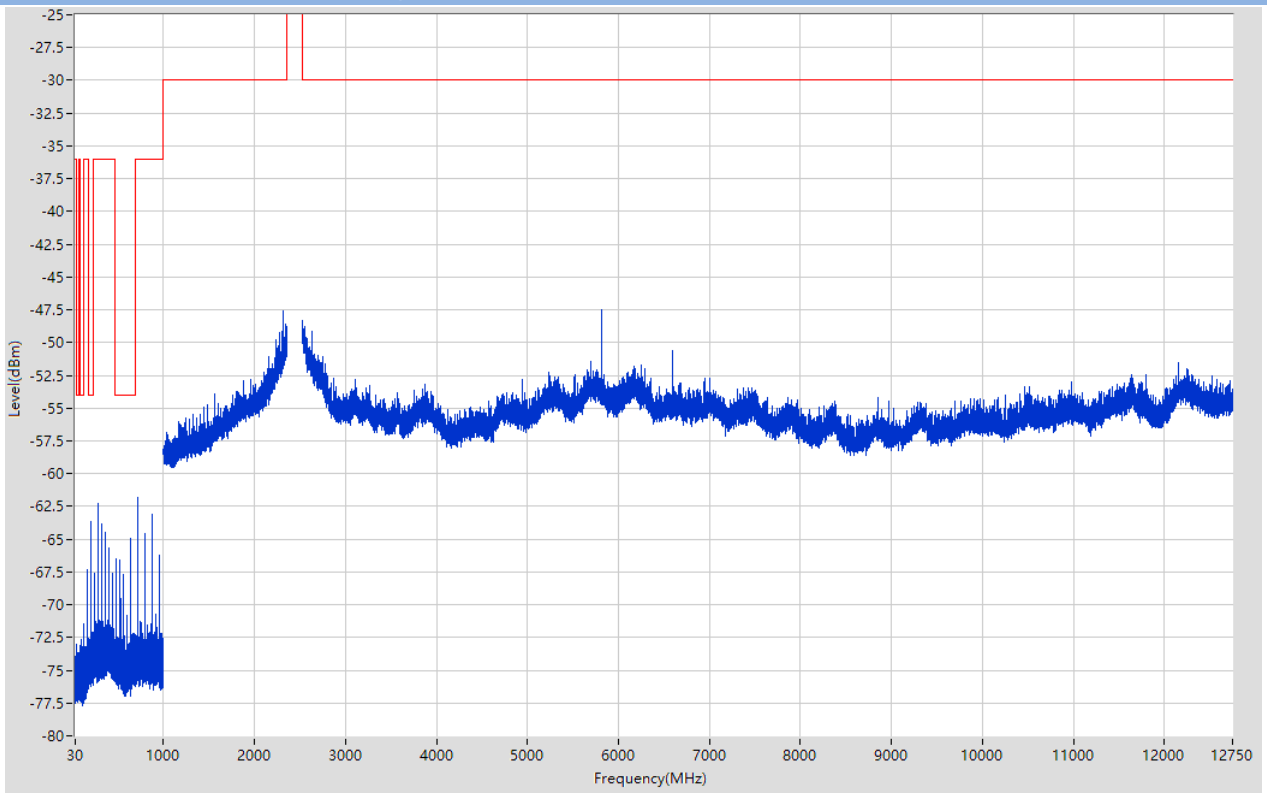
Conducted Test Data

802.11b, 30 MHz to 12.75 GHz, Low Channel



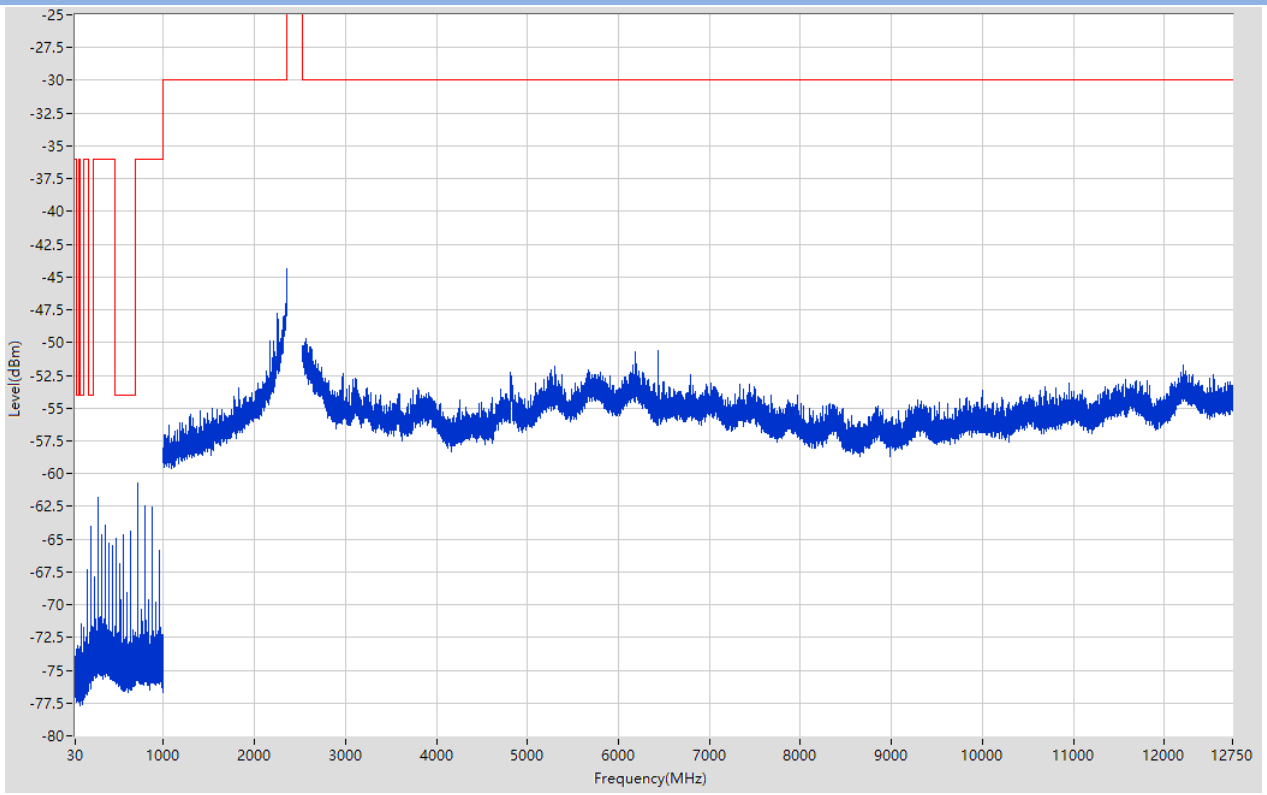
Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	47	0.1	Peak	39.648	-74.1	-36	Pass	401
47	74	0.1	Peak	55.95	-73.93	-54	Pass	541
74	87.5	0.1	Peak	78.084	-73.08	-36	Pass	401
87.5	118	0.1	Peak	87.65	-72.75	-54	Pass	611
118	174	0.1	Peak	160	-68.39	-36	Pass	1121
174	230	0.1	Peak	200	-64.21	-54	Pass	1121
230	470	0.1	Peak	280	-61.67	-36	Pass	4801
470	694	0.1	Peak	560	-64.19	-54	Pass	4481
694	1000	0.1	Peak	880	-62.3	-36	Pass	6121
1000	2360	1	Peak	2347.353	-47.03	-30	Pass	2797
2523.5	12750	1	Peak	5807.796	-48.53	-30	Pass	20530

802.11b, 30 MHz to 12.75 GHz, High Channel



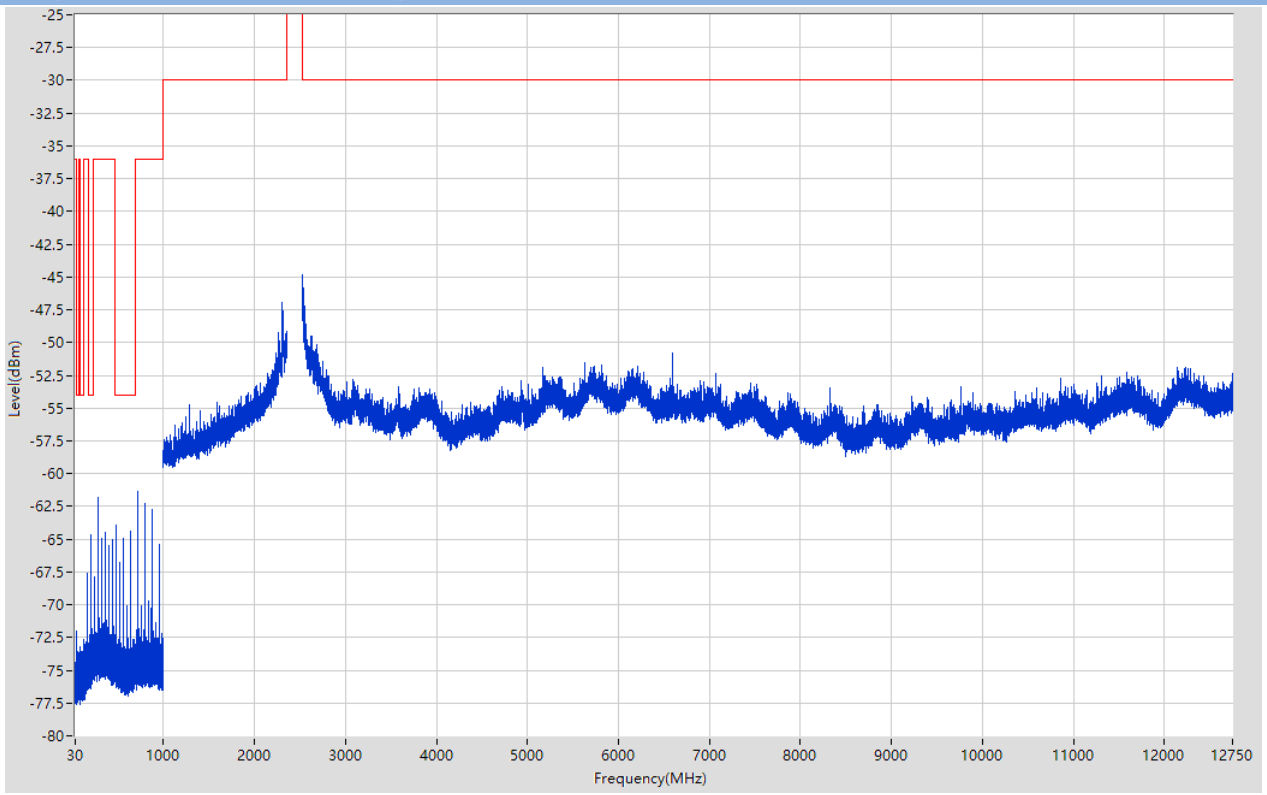
Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	47	0.1	Peak	44.408	-73.02	-36	Pass	401
47	74	0.1	Peak	59.8	-73.69	-54	Pass	541
74	87.5	0.1	Peak	79.434	-73.15	-36	Pass	401
87.5	118	0.1	Peak	96.35	-72.69	-54	Pass	611
118	174	0.1	Peak	160	-67.31	-36	Pass	1121
174	230	0.1	Peak	200	-63.62	-54	Pass	1121
230	470	0.1	Peak	280	-62.28	-36	Pass	4801
470	694	0.1	Peak	640	-64.96	-54	Pass	4481
694	1000	0.1	Peak	720	-61.86	-36	Pass	6121
1000	2360	1	Peak	2314.278	-47.61	-30	Pass	2797
2523.5	12750	1	Peak	5813.276	-47.52	-30	Pass	20530

802.11g, 30 MHz to 12.75 GHz, Low Channel



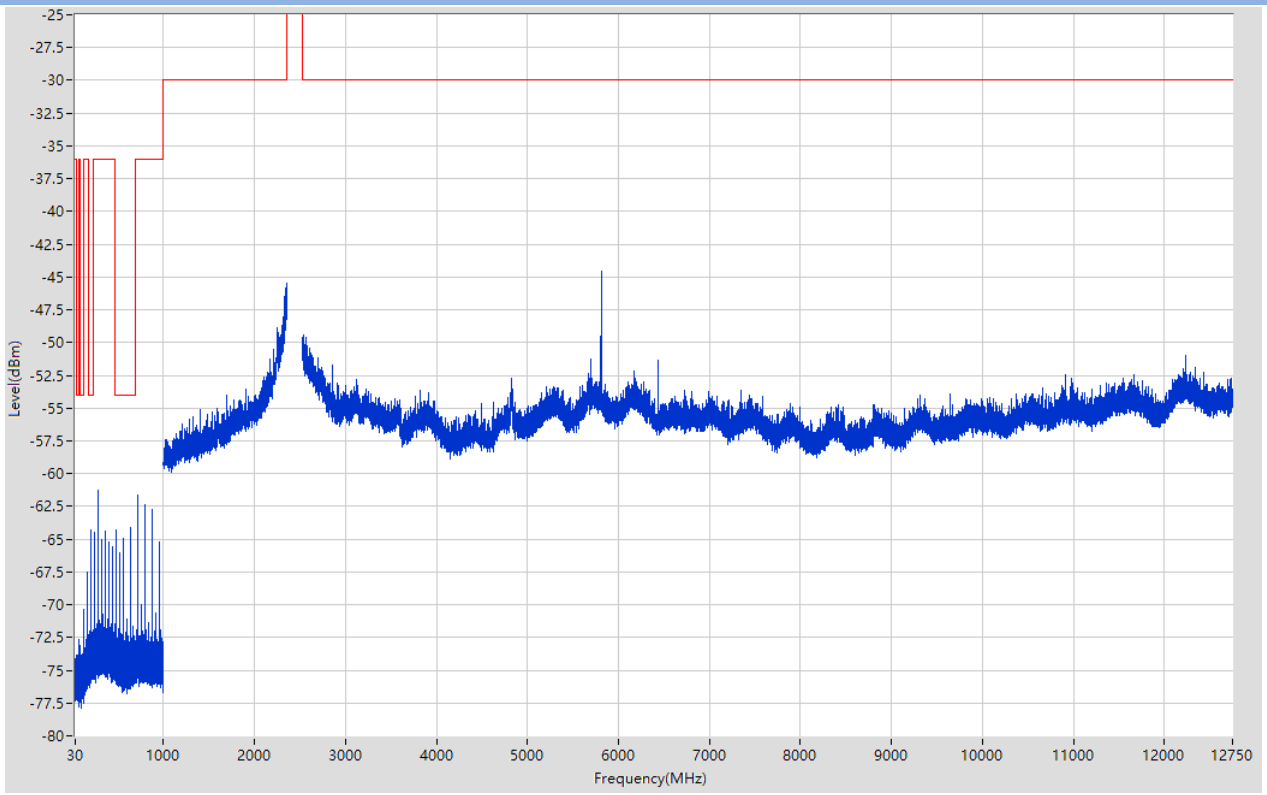
Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	47	0.1	Peak	41.475	-73.35	-36	Pass	401
47	74	0.1	Peak	60.75	-73.11	-54	Pass	541
74	87.5	0.1	Peak	80.21	-73.17	-36	Pass	401
87.5	118	0.1	Peak	98.8	-71.47	-54	Pass	611
118	174	0.1	Peak	160	-67.32	-36	Pass	1121
174	230	0.1	Peak	200	-64.06	-54	Pass	1121
230	470	0.1	Peak	280	-61.78	-36	Pass	4801
470	694	0.1	Peak	640	-64.41	-54	Pass	4481
694	1000	0.1	Peak	720	-60.73	-36	Pass	6121
1000	2360	1	Peak	2357.082	-44.38	-30	Pass	2797
2523.5	12750	1	Peak	2568.832	-49.72	-30	Pass	20530

802.11g, 30 MHz to 12.75 GHz, High Channel



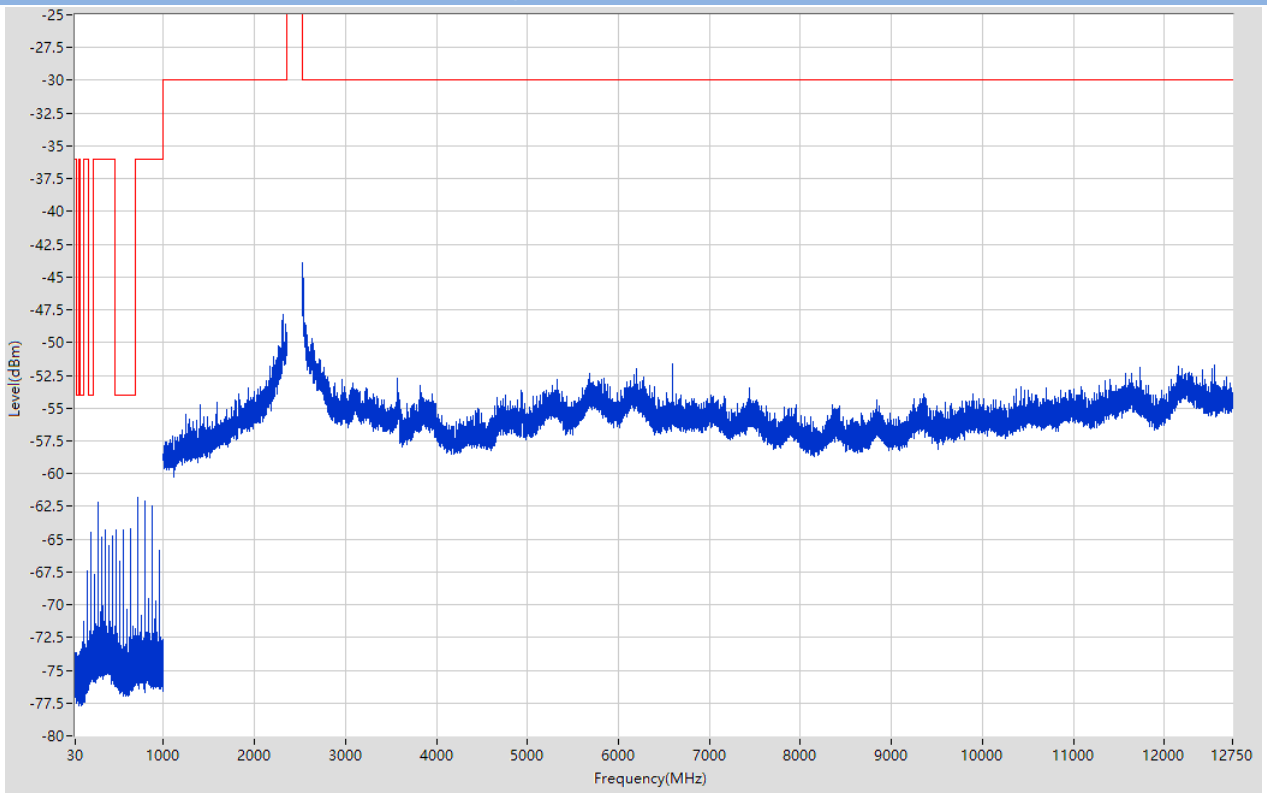
Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	47	0.1	Peak	41.518	-73.72	-36	Pass	401
47	74	0.1	Peak	47.85	-71.99	-54	Pass	541
74	87.5	0.1	Peak	85.07	-73.22	-36	Pass	401
87.5	118	0.1	Peak	116.4	-73.03	-54	Pass	611
118	174	0.1	Peak	160	-67.62	-36	Pass	1121
174	230	0.1	Peak	200	-64.63	-54	Pass	1121
230	470	0.1	Peak	280	-61.79	-36	Pass	4801
470	694	0.1	Peak	480	-63.97	-54	Pass	4481
694	1000	0.1	Peak	720	-61.38	-36	Pass	6121
1000	2360	1	Peak	2306.981	-46.97	-30	Pass	2797
2523.5	12750	1	Peak	2525.493	-44.81	-30	Pass	20530

802.11n(20 MHz), 30 MHz to 12.75 GHz, Low Channel



Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	47	0.1	Peak	40.285	-73.87	-36	Pass	401
47	74	0.1	Peak	70.3	-72.68	-54	Pass	541
74	87.5	0.1	Peak	85.036	-73.13	-36	Pass	401
87.5	118	0.1	Peak	88.5	-73.48	-54	Pass	611
118	174	0.1	Peak	160	-67.56	-36	Pass	1121
174	230	0.1	Peak	200	-64.34	-54	Pass	1121
230	470	0.1	Peak	280	-61.3	-36	Pass	4801
470	694	0.1	Peak	640	-64.12	-54	Pass	4481
694	1000	0.1	Peak	720.05	-61.61	-36	Pass	6121
1000	2360	1	Peak	2360	-45.47	-30	Pass	2797
2523.5	12750	1	Peak	5809.291	-44.57	-30	Pass	20530

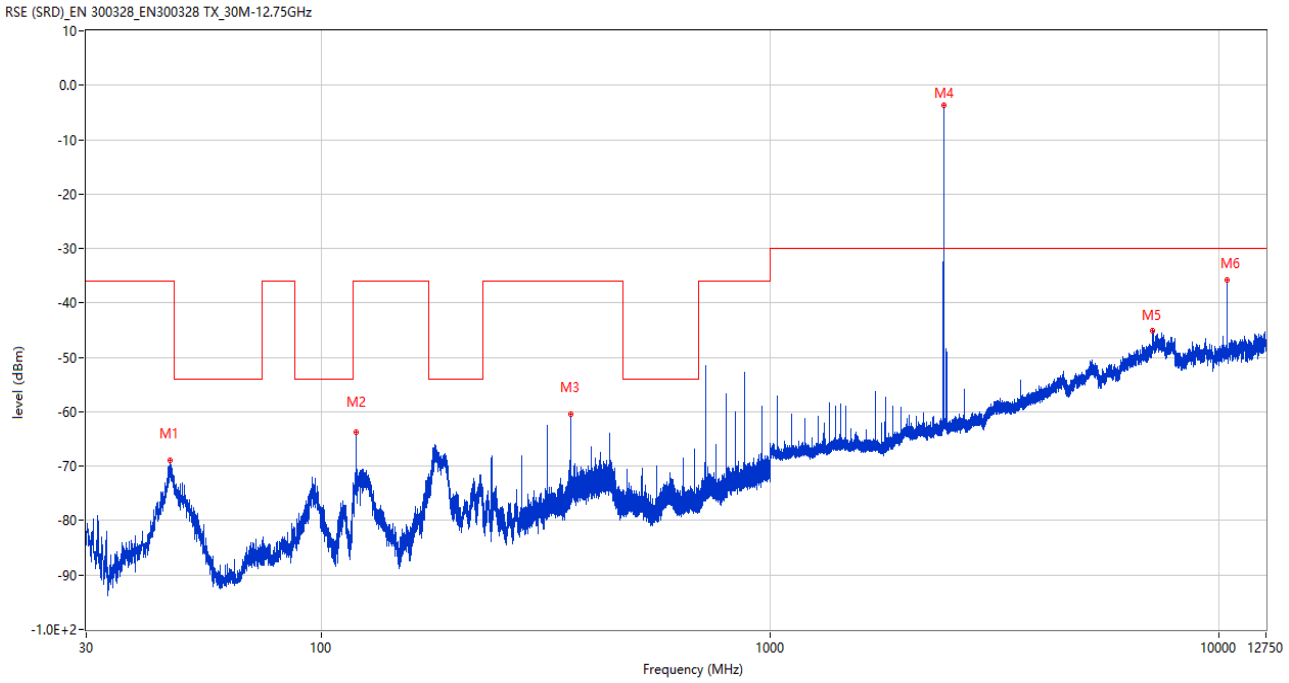
802.11n(20 MHz), 30 MHz to 12.75 GHz, High Channel



Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	47	0.1	Peak	40.03	-73.67	-36	Pass	401
47	74	0.1	Peak	68.45	-73.89	-54	Pass	541
74	87.5	0.1	Peak	80.716	-73.54	-36	Pass	401
87.5	118	0.1	Peak	110.2	-72.82	-54	Pass	611
118	174	0.1	Peak	160.05	-67.4	-36	Pass	1121
174	230	0.1	Peak	200	-64.46	-54	Pass	1121
230	470	0.1	Peak	280	-62.21	-36	Pass	4801
470	694	0.1	Peak	640	-64.22	-54	Pass	4481
694	1000	0.1	Peak	720	-61.8	-36	Pass	6121
1000	2360	1	Peak	2311.359	-47.83	-30	Pass	2797
2523.5	12750	1	Peak	2525.493	-43.96	-30	Pass	20530

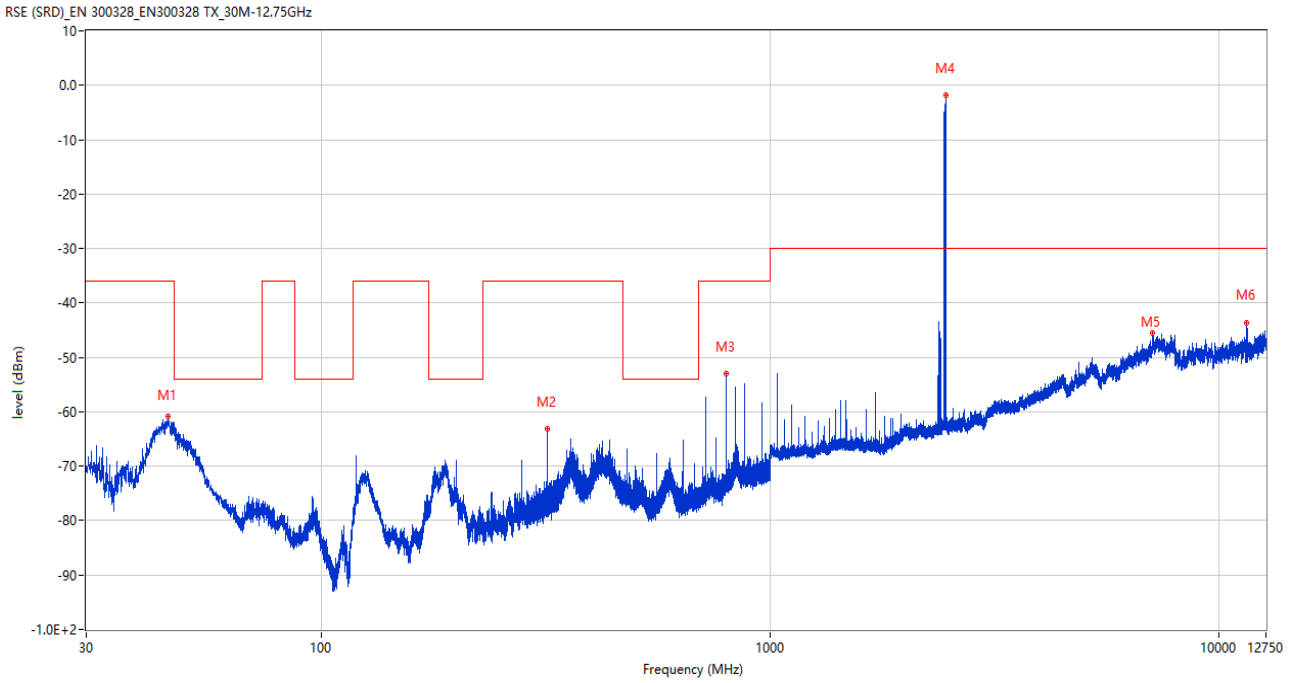
Cabinet Radiation Test Data

30 MHz to 12.75 GHz, ANT H



Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
46.151	-68.97	-13.41	-36.0	-32.97	148.00	Horizontal	Horizontal	Pass
119.967	-63.65	-20.69	-36.0	-27.65	67.00	Horizontal	Horizontal	Pass
359.994	-60.37	-10.93	-36.0	-24.37	166.00	Horizontal	Horizontal	Pass
2444.800	-3.62	0.06	-30.0	26.38	297.00	Horizontal	Horizontal	N/A
7138.250	-45.13	17.58	-30.0	-15.13	123.00	Horizontal	Horizontal	Pass
10437.701	-35.71	14.04	-30.0	-5.71	324.00	Horizontal	Horizontal	Pass

30 MHz to 12.75 GHz, ANT V



Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
45.569	-60.80	-14.89	-36.0	-24.80	221.00	Vertical	Horizontal	Pass
319.982	-63.19	-13.36	-36.0	-27.19	38.00	Vertical	Horizontal	Pass
799.986	-52.95	-0.14	-36.0	-16.95	343.00	Vertical	Horizontal	Pass
2466.500	-1.76	-0.06	-30.0	28.24	102.00	Vertical	Horizontal	N/A
7142.000	-45.54	17.54	-30.0	-15.54	14.00	Vertical	Horizontal	Pass
11567.963	-43.64	14.95	-30.0	-13.64	1.00	Vertical	Horizontal	Pass

A.9 Receiver Spurious Emissions

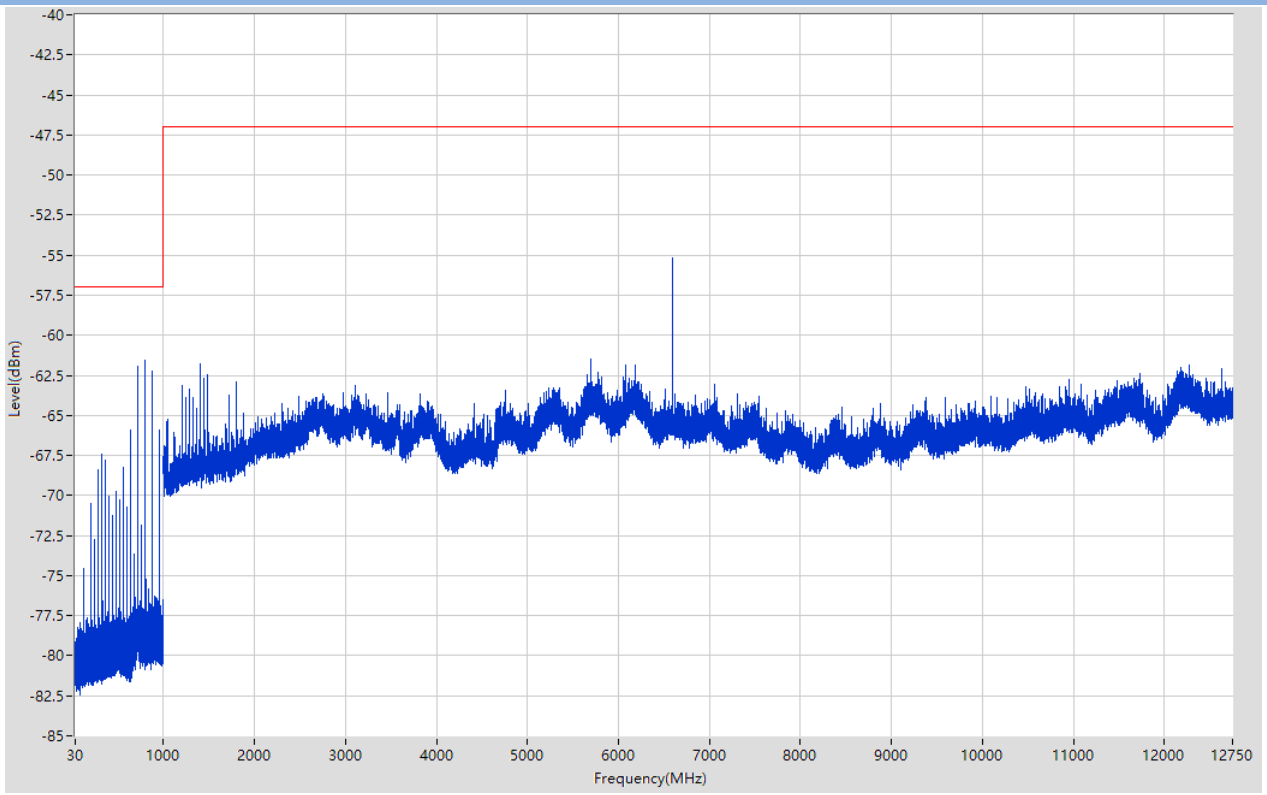
Note [1]: The test method choose the conducted method. Which power in a specified load (conducted spurious emissions) and their effective radiated power when radiated by the cabinet or structure of the equipment (cabinet radiation).
Note [2]: The Frequency band was pre-scanned, the harmonic and other spurious which worst frequency are recorded in the report.
Note [3]: The cabinet radiated test data is tested in the normal working mode of the product.

Measuring Parameter

Frequency Range		
30 MHz to 1 000 MHz	RBW (MHz)	100 kHz
	VBW (MHz)	300 kHz
	Sweep points	9970
	Detector mode	Peak
	Trace mode	Max Hold
1 GHz to 12,75 GHz	RBW (MHz)	1 MHz
	VBW (MHz)	3 MHz
	Sweep points	11750
	Detector mode	Peak
	Trace mode	Max Hold

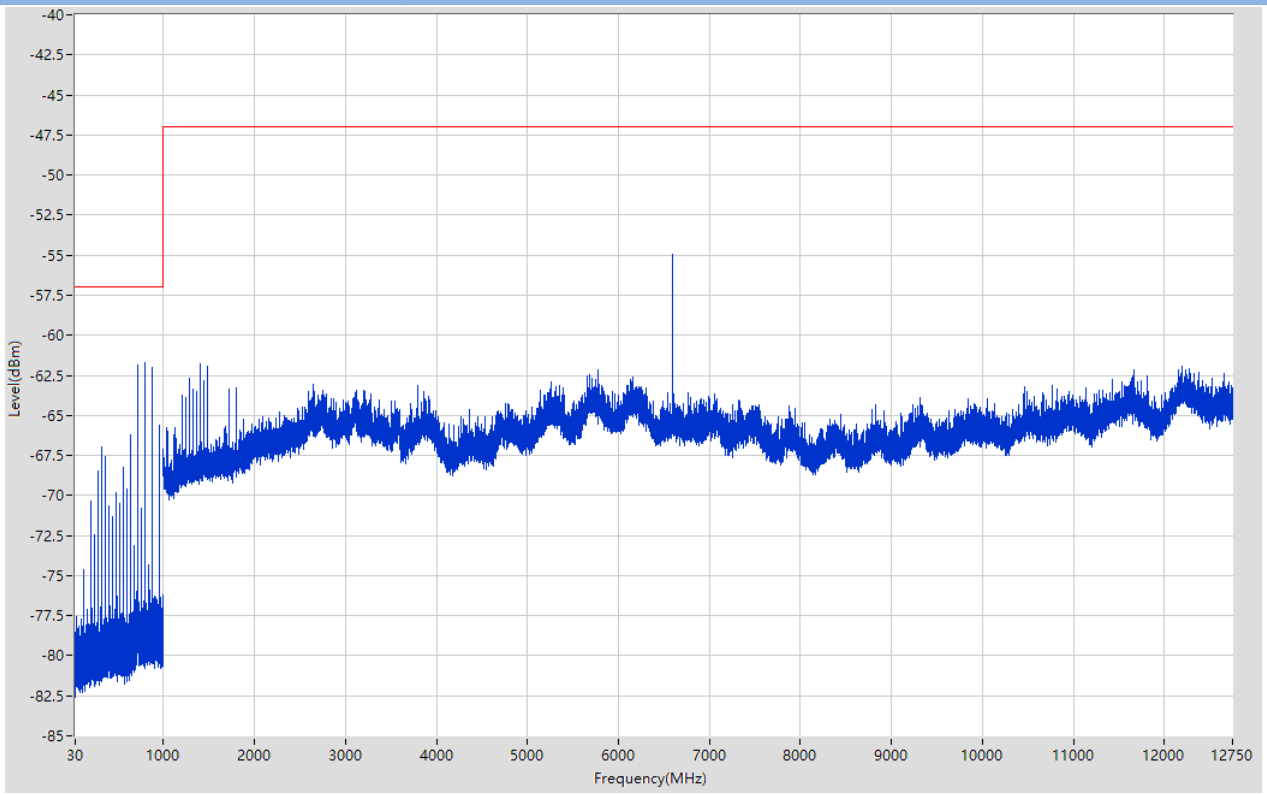
Conducted Test Data

802.11b, 30 MHz to 12.75 GHz, Low Channel



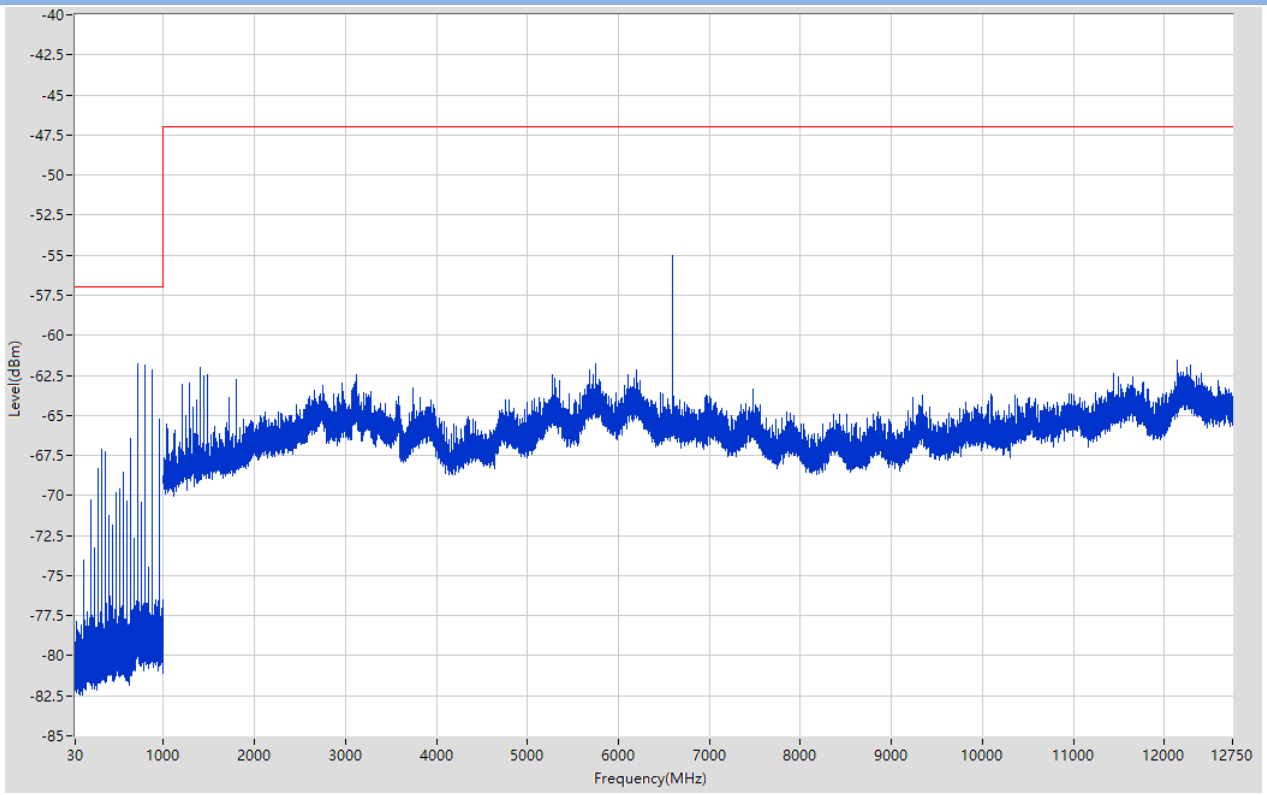
Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	1000	0.1	Peak	800	-61.6	-57	N/A	19401
			RMS		-61.86		Pass	30000
1000	12750	1	Peak	6592	-55.19	-47	Pass	23501

802.11b, 30 MHz to 12.75 GHz, High Channel



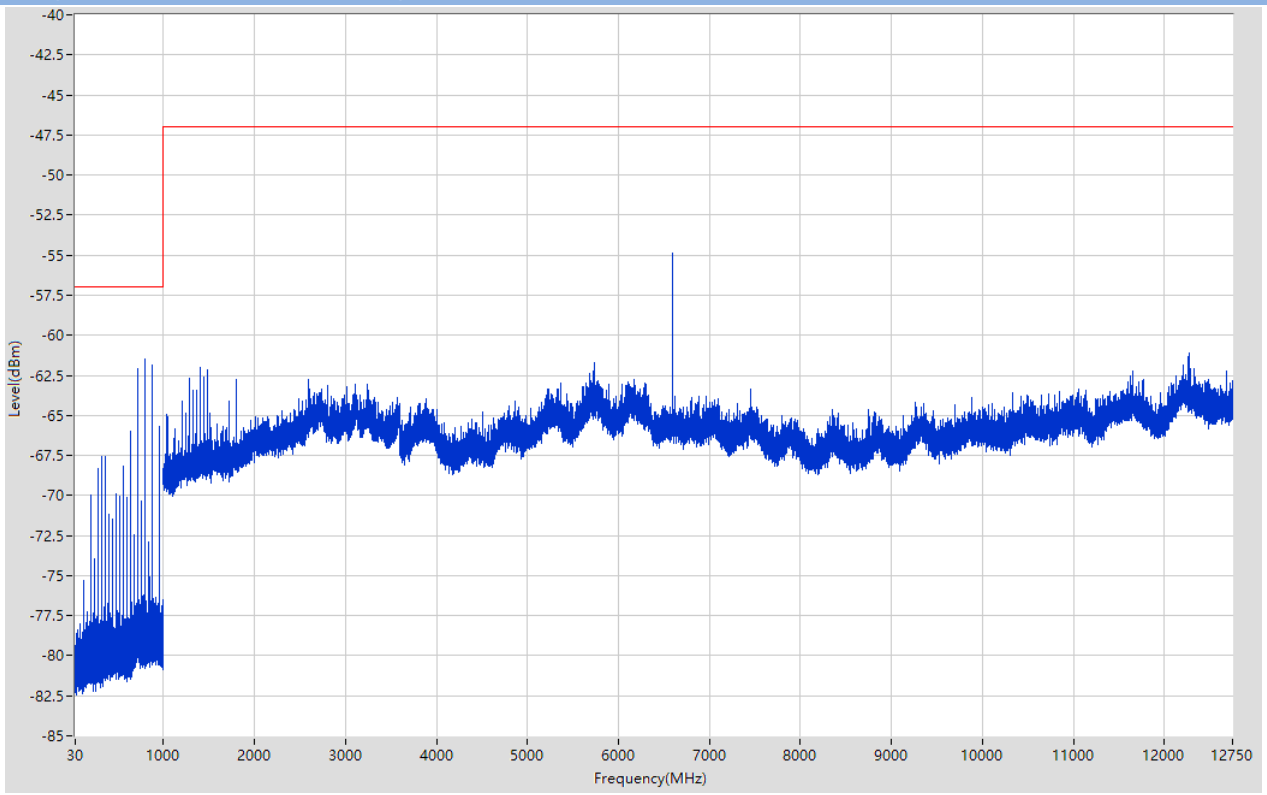
Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	1000	0.1	Peak	800	-61.72	-57	N/A	19401
			RMS		-61.99		Pass	30000
1000	12750	1	Peak	6592	-54.96	-47	Pass	23501

802.11g, 30 MHz to 12.75 GHz, Low Channel



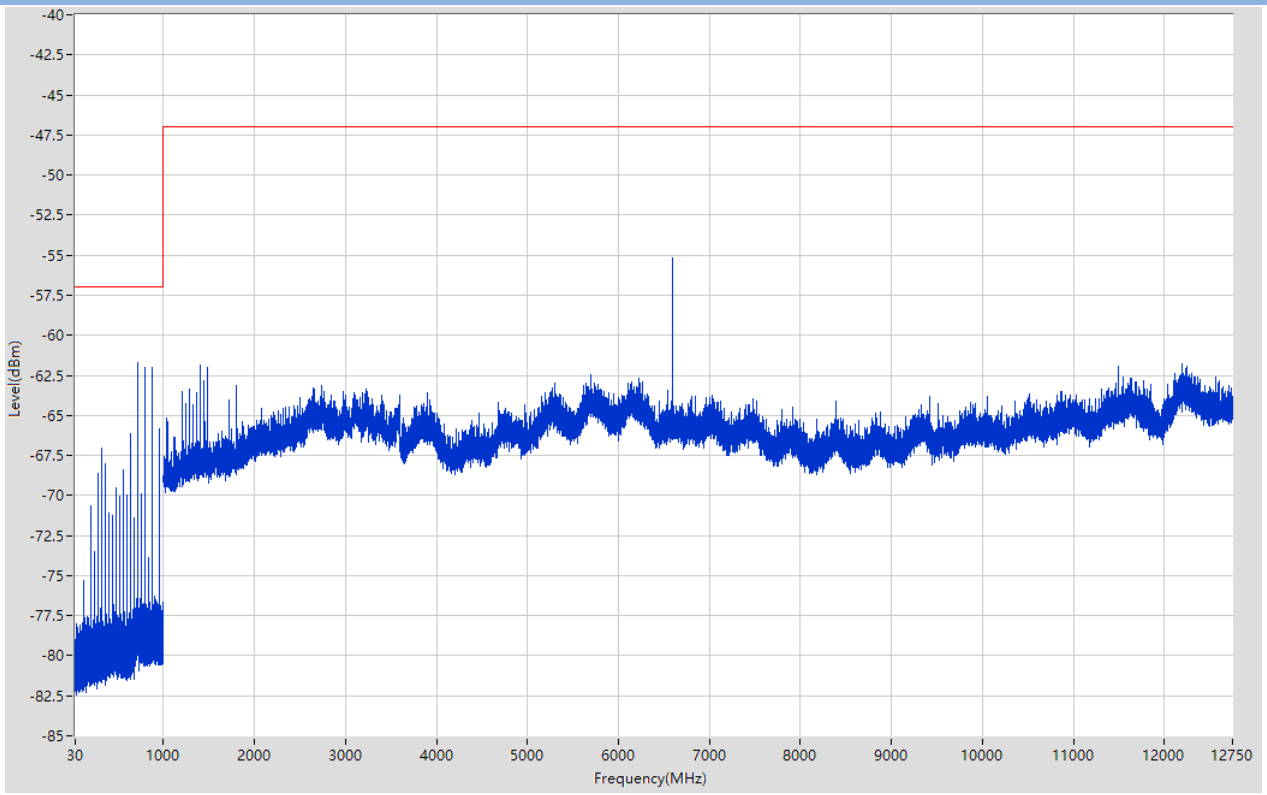
Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	1000	0.1	Peak	720	-61.78	-57	N/A	19401
			RMS		-61.99		Pass	30000
1000	12750	1	Peak	6592	-55.01	-47	Pass	23501

802.11g, 30 MHz to 12.75 GHz, High Channel



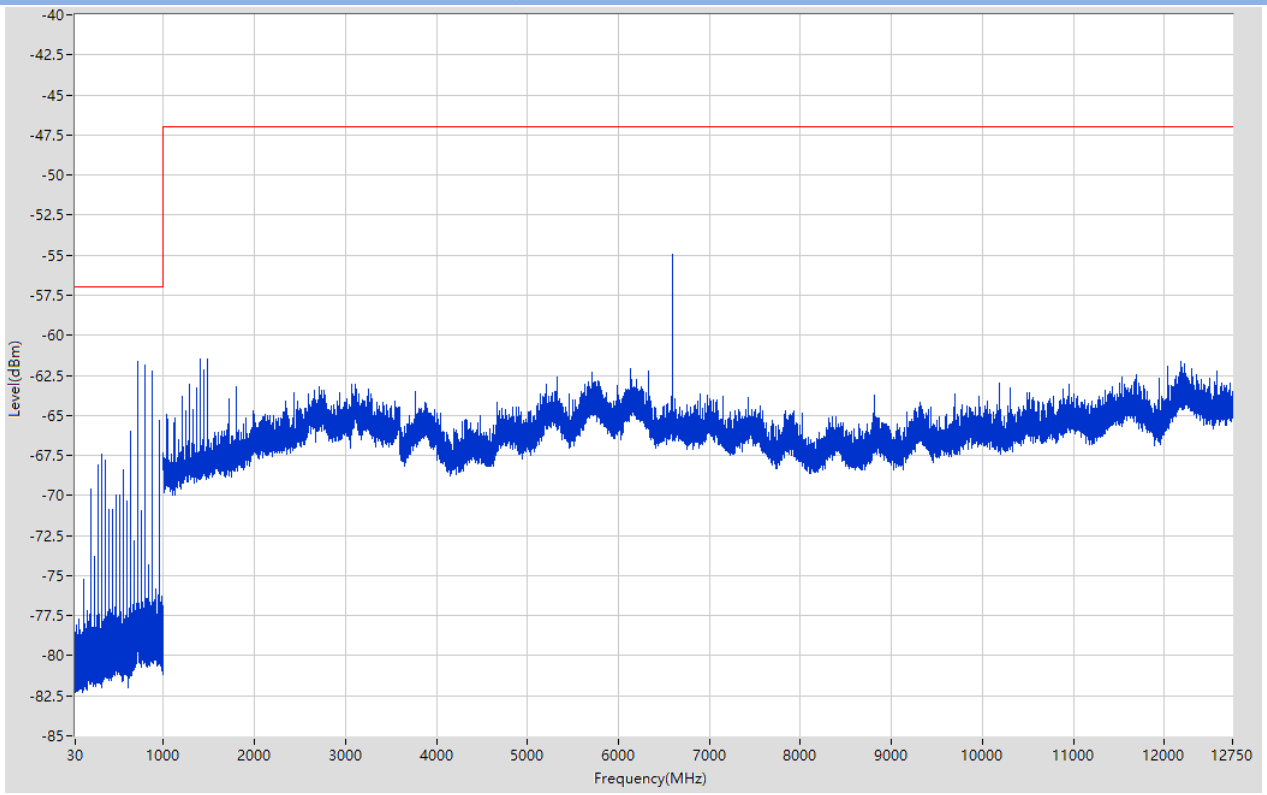
Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	1000	0.1	Peak	800	-61.48	-57	N/A	19401
			RMS		-61.85		Pass	30000
1000	12750	1	Peak	6592	-54.88	-47	Pass	23501

802.11n(20 MHz), 30 MHz to 12.75 GHz, Low Channel



Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	1000	0.1	Peak	720	-61.73	-57	N/A	19401
			RMS		-61.9		Pass	30000
1000	12750	1	Peak	6592	-55.19	-47	Pass	23501

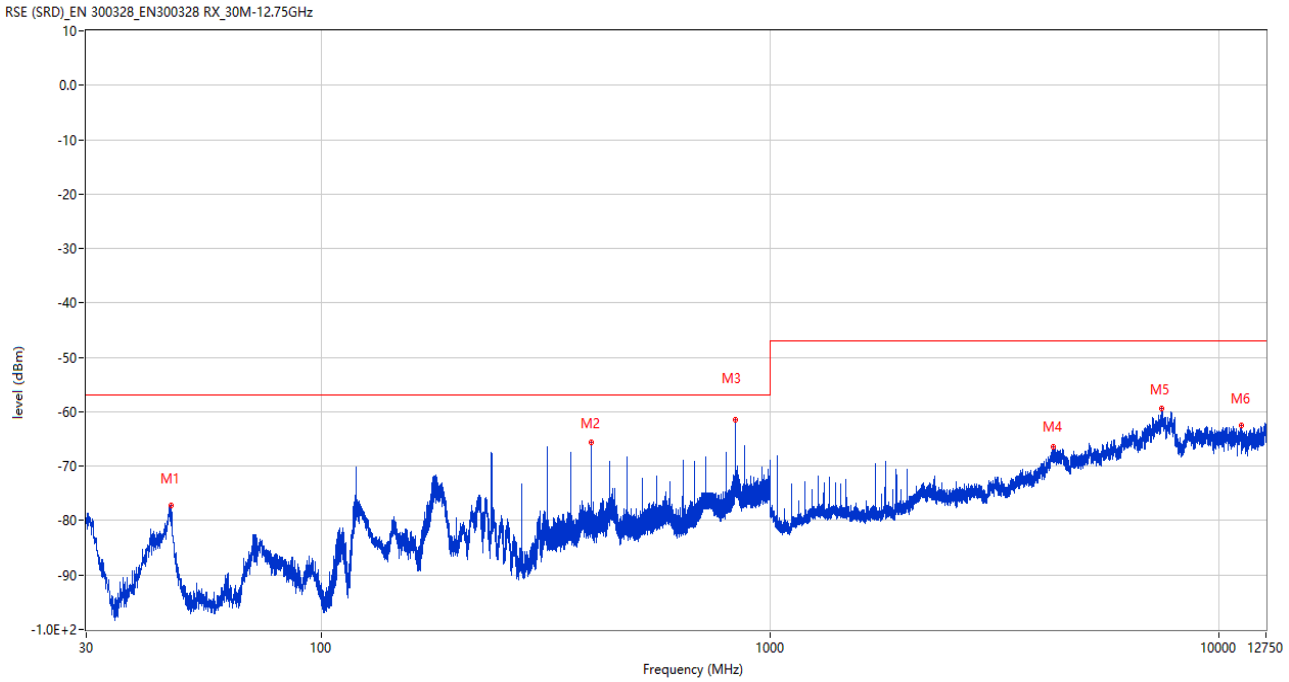
802.11n(20 MHz), 30 MHz to 12.75 GHz, High Channel



Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	1000	0.1	Peak	720	-61.64	-57	N/A	19401
			RMS		-61.93		Pass	30000
1000	12750	1	Peak	6592	-54.94	-47	Pass	23501

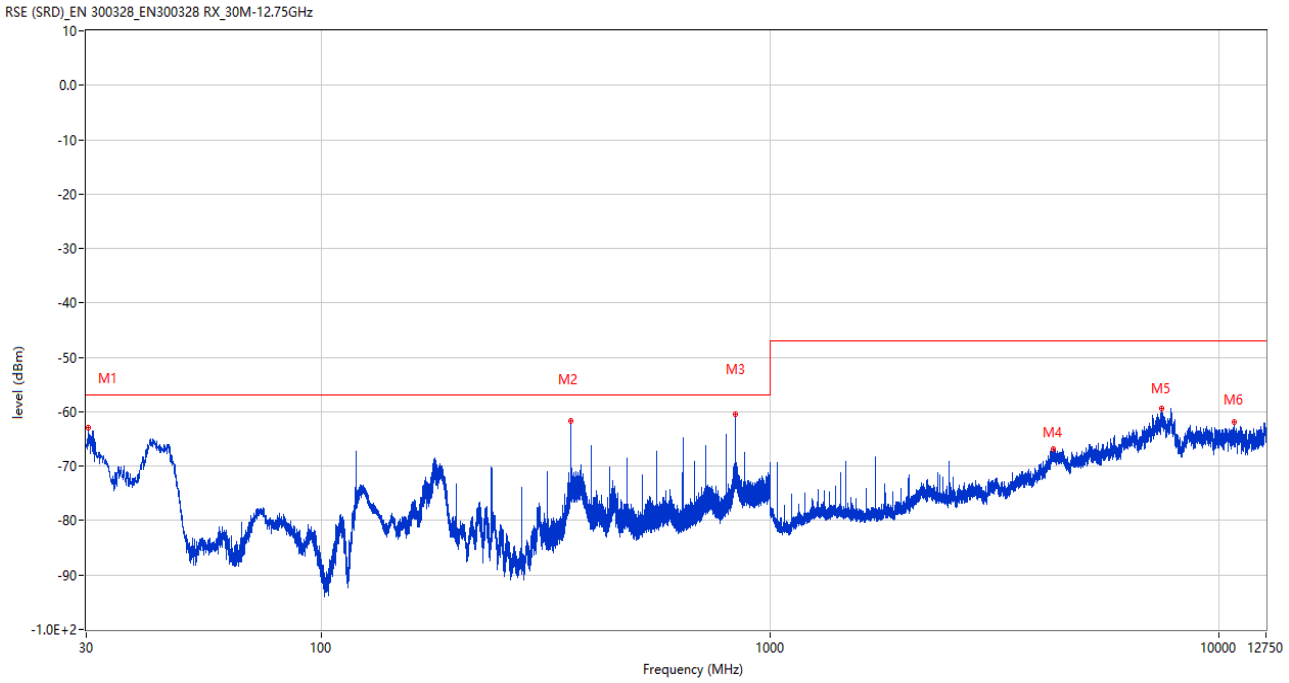
Cabinet Radiation Test Data

30 MHz to 12.75 GHz, ANT H



Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
46.248	-77.16	-13.65	-57.0	-20.16	357.00	Horizontal	Horizontal	Pass
399.958	-65.55	-10.85	-57.0	-8.55	124.00	Horizontal	Horizontal	Pass
839.950	-61.47	0.61	-57.0	-4.47	221.00	Horizontal	Horizontal	Pass
4282.000	-66.52	-4.31	-47.0	-19.52	62.00	Horizontal	Horizontal	Pass
7454.500	-59.47	3.42	-47.0	-12.47	254.00	Horizontal	Horizontal	Pass
11217.412	-62.60	-1.20	-47.0	-15.60	132.00	Horizontal	Horizontal	Pass

30 MHz to 12.75 GHz, ANT V



Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
30.388	-62.93	-21.24	-57.0	-5.93	351.00	Vertical	Horizontal	Pass
359.994	-61.59	-10.93	-57.0	-4.59	87.00	Vertical	Horizontal	Pass
839.998	-60.36	0.61	-57.0	-3.36	9.00	Vertical	Horizontal	Pass
4277.250	-66.81	-4.23	-47.0	-19.81	183.00	Vertical	Horizontal	Pass
7466.000	-59.36	3.15	-47.0	-12.36	222.00	Vertical	Horizontal	Pass
10813.901	-61.82	-1.64	-47.0	-14.82	331.00	Vertical	Horizontal	Pass

A.10 Receiver Blocking

Test Data

Note 1: Blocking signal levels specified are levels in front of the UUT antenna. In case of conducted measurements, the levels corrected by the actual antenna assembly gain.

Note 2: During the Blocking test, the number of packets sent by the system is 1000.

802.11b:

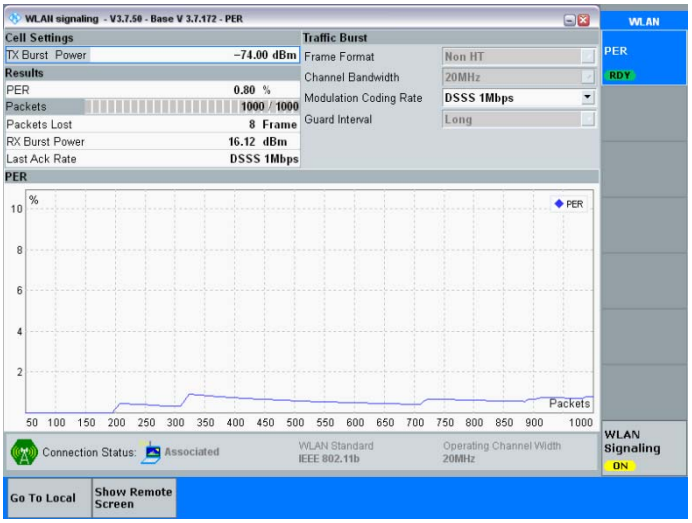
Receiver Category 1 equipment

Wanted signal mean power from companion device (dBm)	Blocking signal Frequency (MHz)	Blocking signal power (dBm) (see note 1)	PER Result		Limit	Verdict
			Low channel	High channel		
(-133 dBm + 10 × $\log_{10}$(OCBW)) or -68 dBm whichever is less	2 380	-34	0.20%	0.00%	≦10%	Pass
	2 504	-34	0.00%	0.10%		
(-139 dBm + 10 × $\log_{10}$(OCBW)) or -74 dBm whichever is less	2 300	-34	0.00%	0.00%		
	2 330	-34	0.00%	0.10%		
	2 360	-34	0.10%	0.10%		
	2 524	-34	0.80%	0.10%		
	2 584	-34	0.10%	0.00%		
	2 674	-34	0.10%	0.40%		

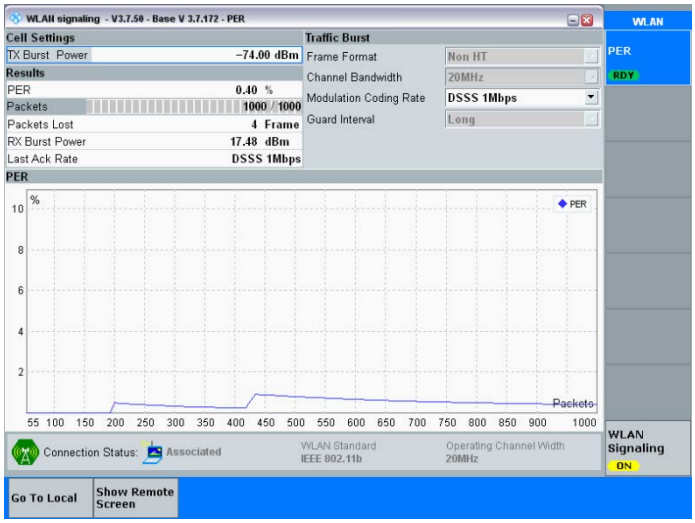
Test Plot (PER)

Note: All the configuration were tested, but only the worst PER Plot were reported in this report.

802.11b: Low Channel



802.11b: High Channel



ANNEX B TEST SETUP PHOTOS

Please refer to the document “BL-SZ21C0720-AR.PDF”.

ANNEX C EUT EXTERNAL PHOTOS

Please refer to the document “BL-SZ21C0720-AW.PDF”.

ANNEX D EUT INTERNAL PHOTOS

Please refer to the document “BL-SZ21C0720-AI.PDF”.

--END OF REPORT--